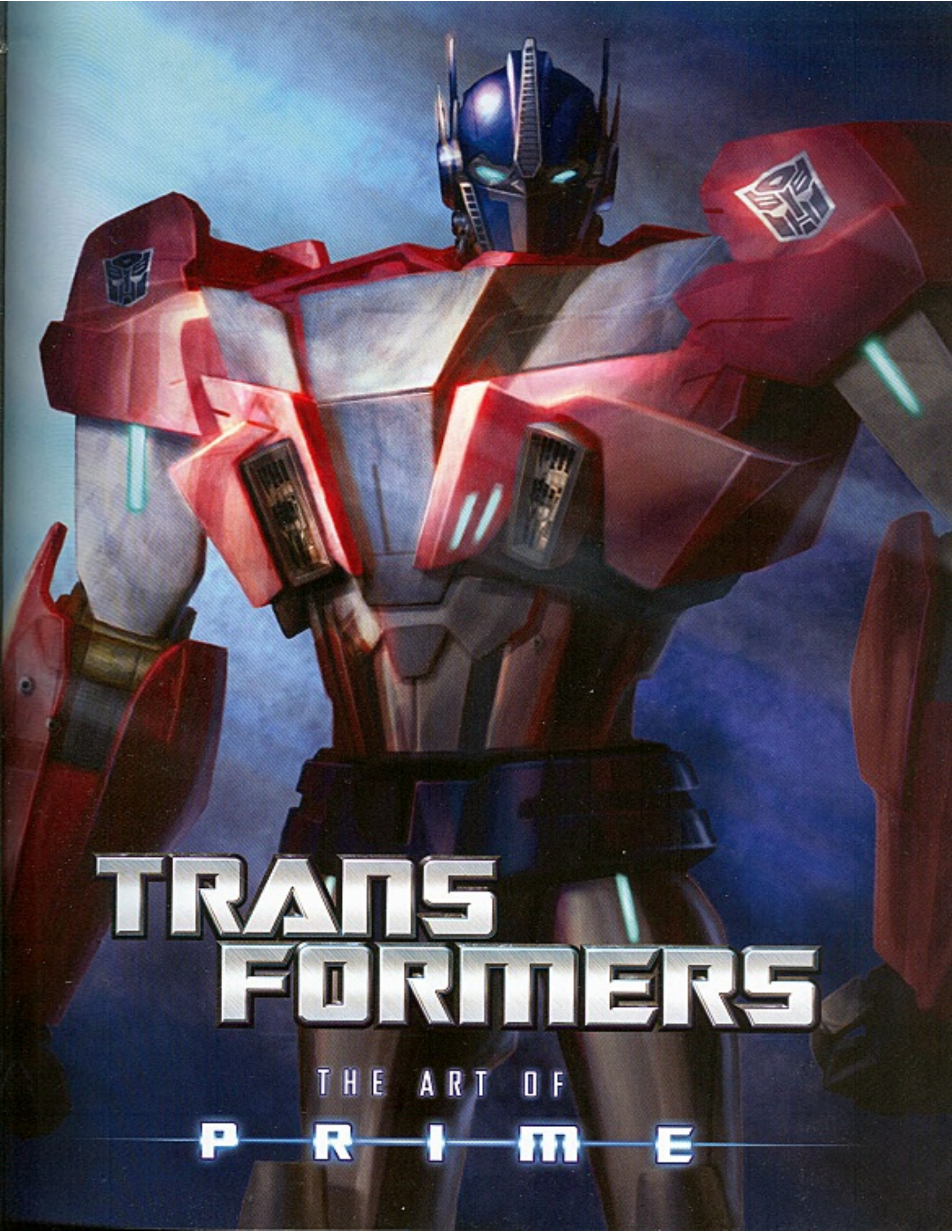


TRANS FORMERS



THE ART OF

P-R-I-M-E



TRANS FORMERS

THE ART OF

P-R-I-M-E

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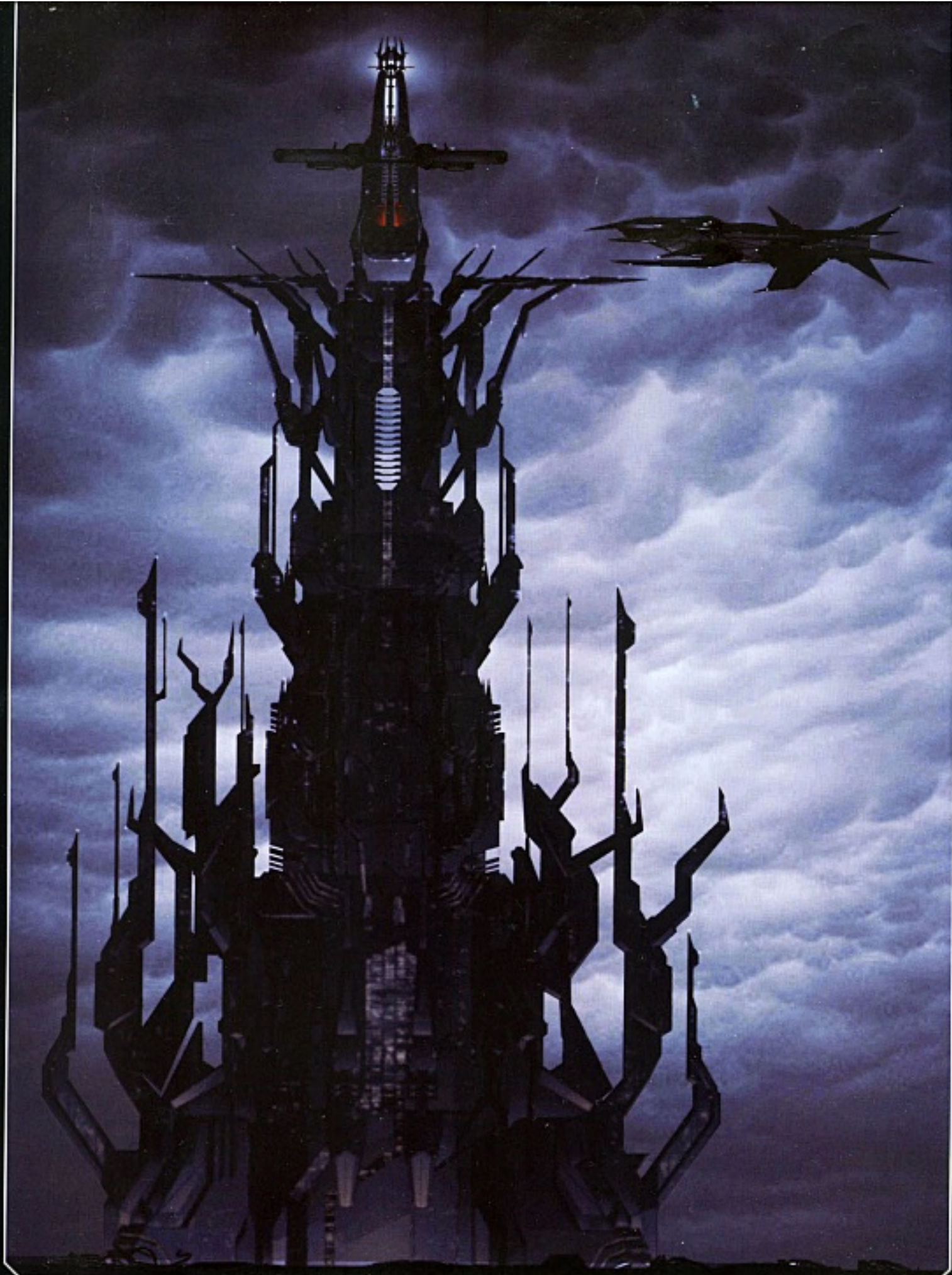
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DIRECTORS
**SCOOTER TIDWELL, TODD WATERMAN,
VINTON HEUCK, & SHAUNT NIGOGHOSSIAN**



"I can't draw. Not a lick. So, on Transformers Prime, I surrounded myself with some of the very best artists I'd had the pleasure of working with during the past 15 years. And we all pretended that I was in charge."

-Jeff Klein, Executive Producer



DARKMOUNT EXTERIOR



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FOREWORD: Peter Cullen

It is said that those who cannot remember the past are condemned to repeat it, but *Transformers Prime* proves that sometimes those who hold the past with great reverence are fortunate to repeat it.

Transformers has been an important part of the popular culture, and my own personal and professional life, for close to 30 years. *Transformers* shows have come and gone, but few have managed to recapture the feel of the original like *Transformers Prime* has. Looking through the pages of this book, it's clear as to why. Everyone involved in building this world knew they were making something special. The breathtaking visuals and spectacular designs lean on what went before, but never hesitate to take that leap of faith into the modern era.

I am proud to have contributed my own efforts to *Transformers*, and hope you enjoy this collection showcasing the work of the talented artists and designers who made *Prime* such a success. 'Till all are one!

-Peter Cullen, the voice of Optimus Prime

INTRODUCTION: Jim Sorenson

Transformers has been around for a long time. In that time, there have been some six HUNDRED episodes produced for more than a dozen series. Despite this vast sea of material to compare to, *Transformers Prime* stands apart. There can be little doubt that *Prime* shattered the expectations of what it was possible for a *Transformers* (or, indeed, ANY CG) television show to look like. One need merely flip through the pages of this book to get a sense as to how detailed, how intricate, how beautiful the world of *Prime* is. Truly, *Prime's* team did an amazing job in realizing a universe.

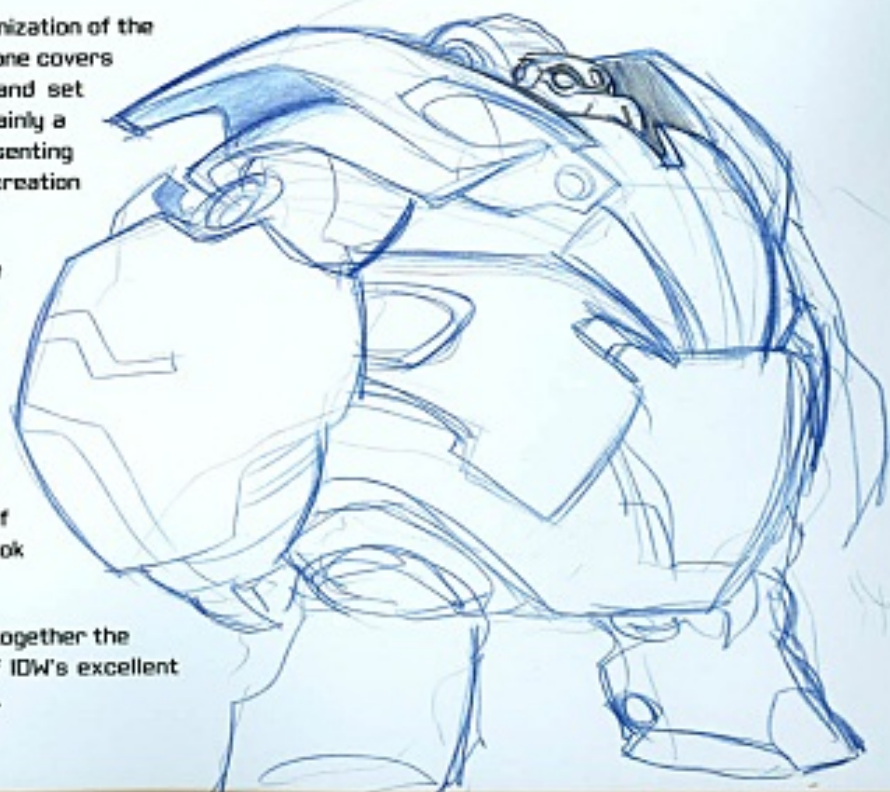
I was fortunate enough to be able to speak with many of the architects of this modern day mythology. In these pages, you'll read the words of folks like David Hartman, the Supervising Director responsible for the overall look and feel of the show; Jose Lopez, the Art Director whose team was responsible for the design of all characters and props in the show; Production Designer Vince Toyama, whose staff created the sets and environments that were practically characters in their own right; and VFX Director (and longtime advocate of this project) Christophe Vache, whose team suffused the characters and environments with the spark of life through the artful use of color. Their insights were invaluable and have turned this book from merely a collection of (admittedly very pretty) pictures to a tome chocked full of information about the hows and whys behind the images.

In the interest of better presenting the process, the organization of the book reflects the organization of the artistic team. Part one covers character and prop design; part two, environmental and set design; part three, color and effects. While there is certainly a great deal of crossover among the three, I feel that presenting the artwork in this manner better reflects the underlying creation of the material.

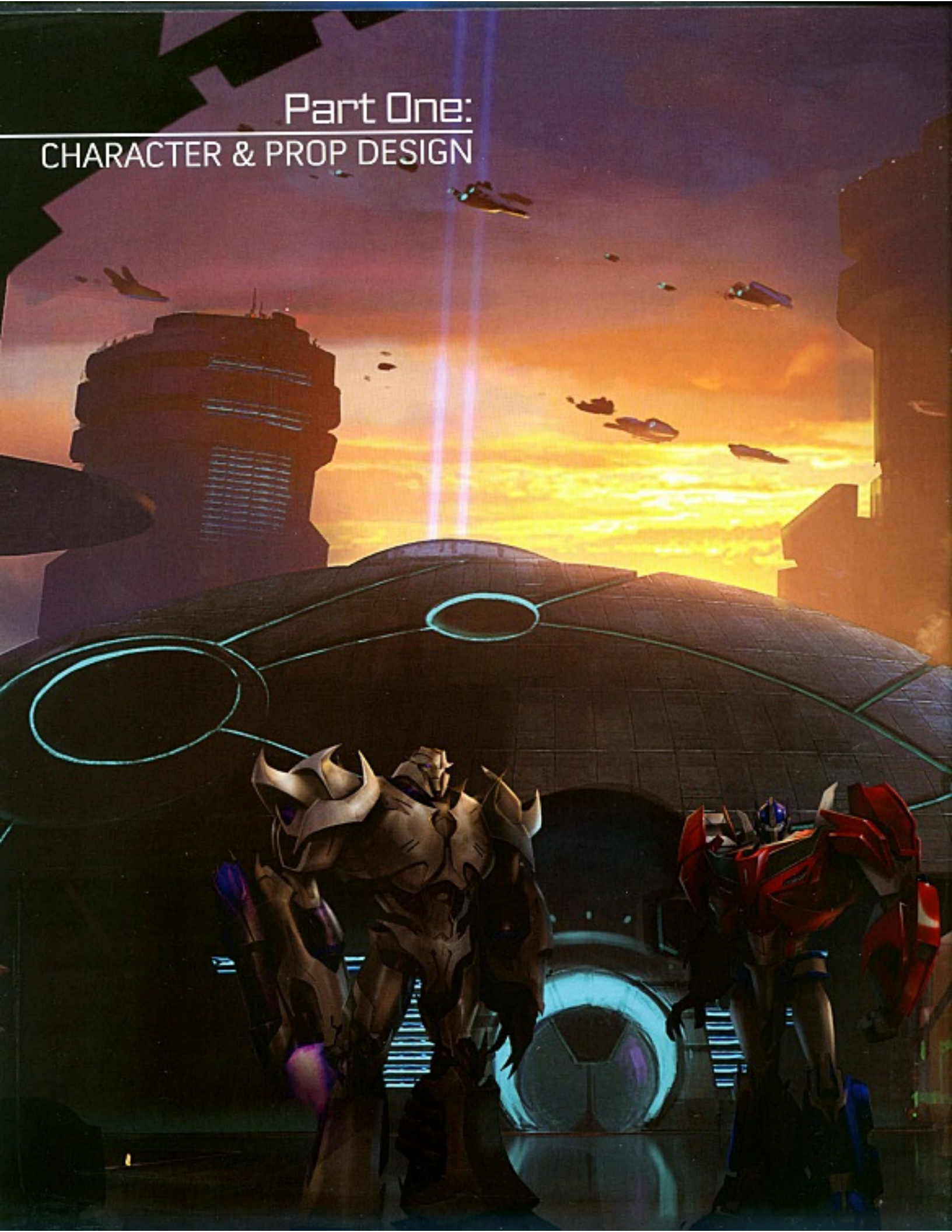
In addition to the four gentlemen listed above, I would be remiss if I didn't thank Executive Producer Jeff Kline, Animation Producer Therese Trujillo, and most especially Production Manager Mathias Dougherty, whose diligence and patience in setting up interviews and procuring material for me have proven invaluable. And, of course, a big thank you to everyone on the *Prime* staff for producing a surfeit of material for me to choose from. Believe me, folks, the artwork in this book is just the tip of the iceberg. If my editor had let me, I'd have made this book twice as long!

I am humbled and honored to have had the chance to pull together the material they produced and fashion it (with the help of IDW's excellent production staff) into this volume. I hope we did it justice.

-Jim Sorenson



Part One:
CHARACTER & PROP DESIGN







SCARLET



INTRODUCTION:

Jose Lopez - Art Director / Characters & Props

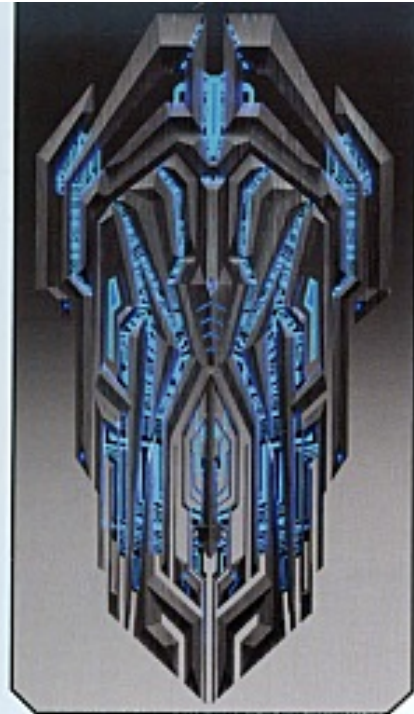
Optimus Prime was my childhood hero. Being a kid growing up in the '80s, I was fortunate to be exposed to a wide array of animated shows and action figures. These franchises shaped our generation's imagination, and in many ways inspired some of us into the careers we have now as adults. Transformers had all the elements to make it an instant classic; giant robots fighting an intergalactic war here on our planet, disguised as everyday vehicles. I could only wish my dad's car would transform into an Autobot, but since that wasn't going to happen, spending hours drawing Optimus was the next best thing.

As a designer in animation you often come across the opportunity to revisit your childhood heroes and be a part of their world from the driver's seat. *Transformers Prime* gave me the chance to submerge myself into the world of Autobots and Decepticons and take a stab at giving them a fresh new look. I still remember losing sleep at the thought of redesigning Optimus, but I have to say that this opportunity has truly been an honor. *Prime* is to this point the highlight of my career both in terms of challenges and rewards. It's one of the sickest shows on TV.

Design, animation, and product; never before have I been so proud of what we have accomplished. From creating a new style for the bots that maintains all the iconic elements which make them fan favorites to this day, to details like Starscream's infamous high-heels and Knockout's, well, his sexy self I guess, I couldn't be happier with the work.

The only way we could accomplish this was to put together the craziest, most talented, and hardest working character and prop team. Character designers Walter Gatus and Augusto Barranco and prop designers Christie Tseng, Daniel Park, and April Eriksson, thank you, you guys rock! I'm extremely blessed to be a part of this amazing show and part of one of the most talented group of artists in animation, here at Hasbro and in Japan at Polygon.

Hopefully the show and the art you are about to see from the team gives you a glimpse into the amount of work and imagination that goes into creating a Transformers show. And possibly it'll inspire you to pick up a pencil and draw your favorite bots. You never know, maybe one day you will get to design your own childhood heroes. I have to say that almost 30 years later Optimus is still my hero, but hey, this time it's MY Optimus Prime!



THE KEY TO VECTOR SIGMA



STARSCREAM'S VEHICON SEEKERS



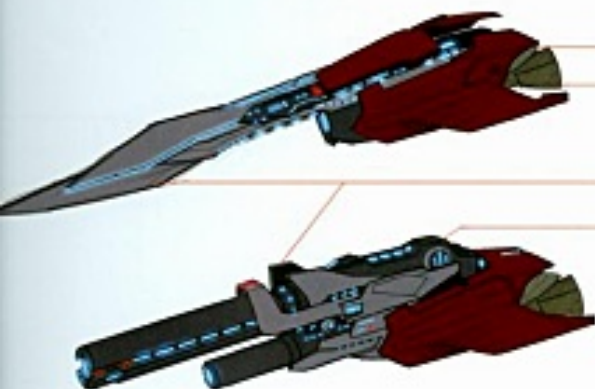
CHAPTER ONE

AUTOBOTS





OPTIMUS PRIME



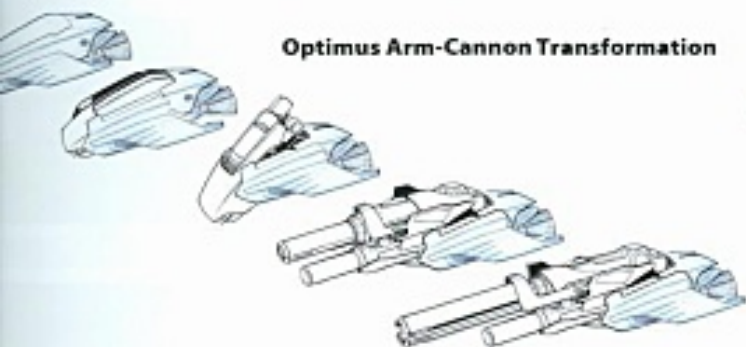
"We looked through all the incarnations of Optimus over the years and kept the iconic elements that make him who he is. The crest on his head. The windshield wipers on his chest. The position of the wheels on the lower legs. The position of the emblems on the shoulders. Even on the biceps you see the slightly lighter grey tone just to mimic the white on the biceps of G1." -Jose Lopez



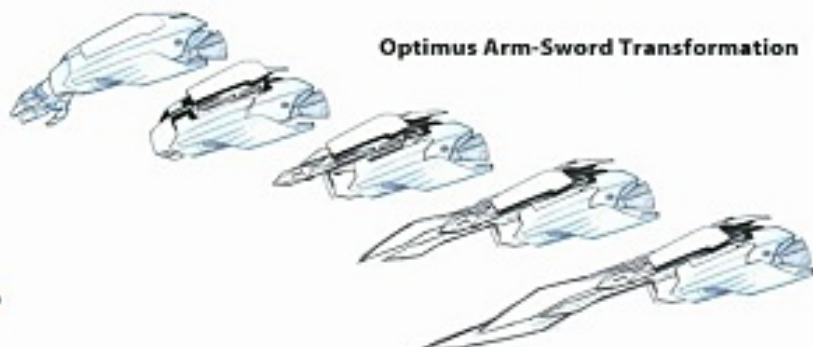
TRANSFORMERS

OPTIMUS PRIME CANNON/SWORD COLOR KEYS

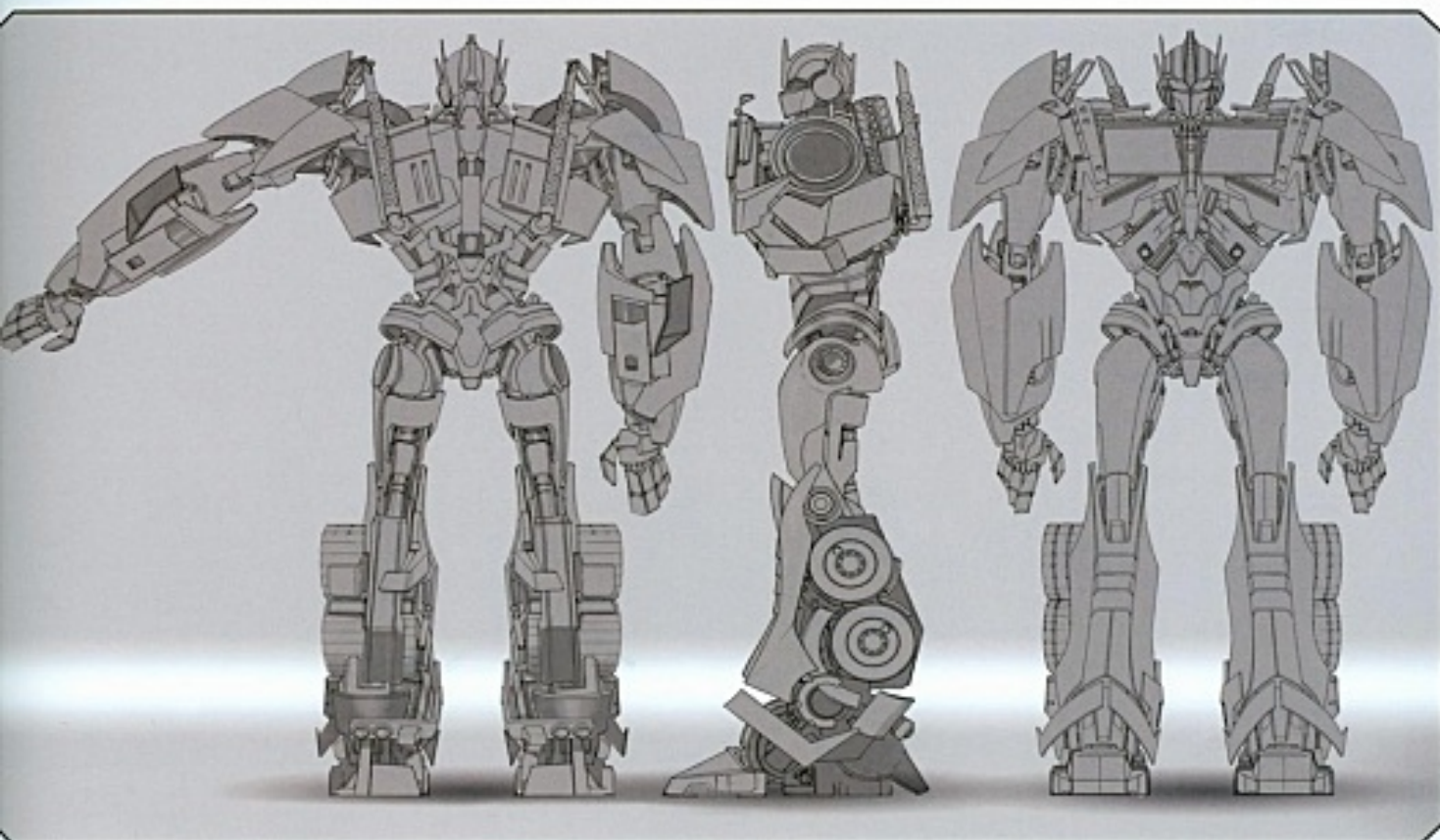
DANIEL PARK

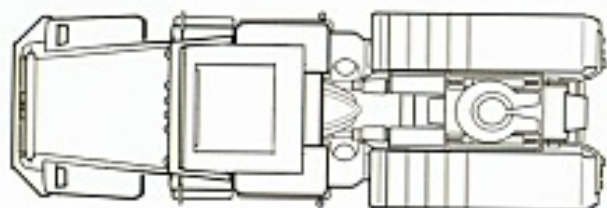
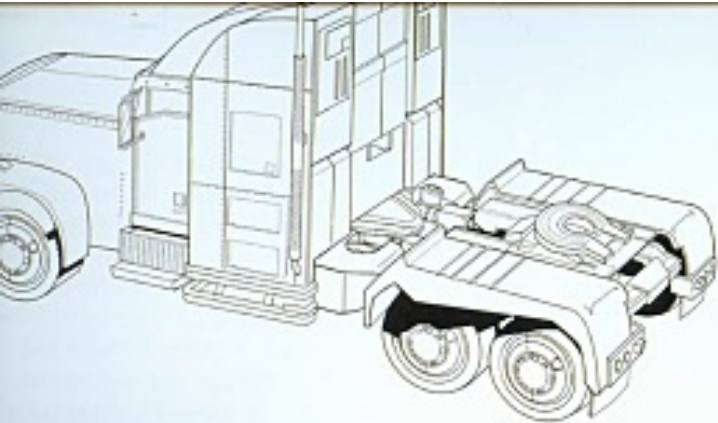


Optimus Arm-Cannon Transformation



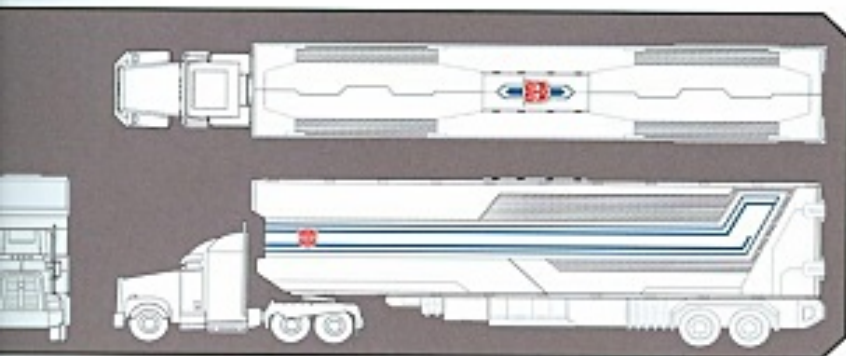
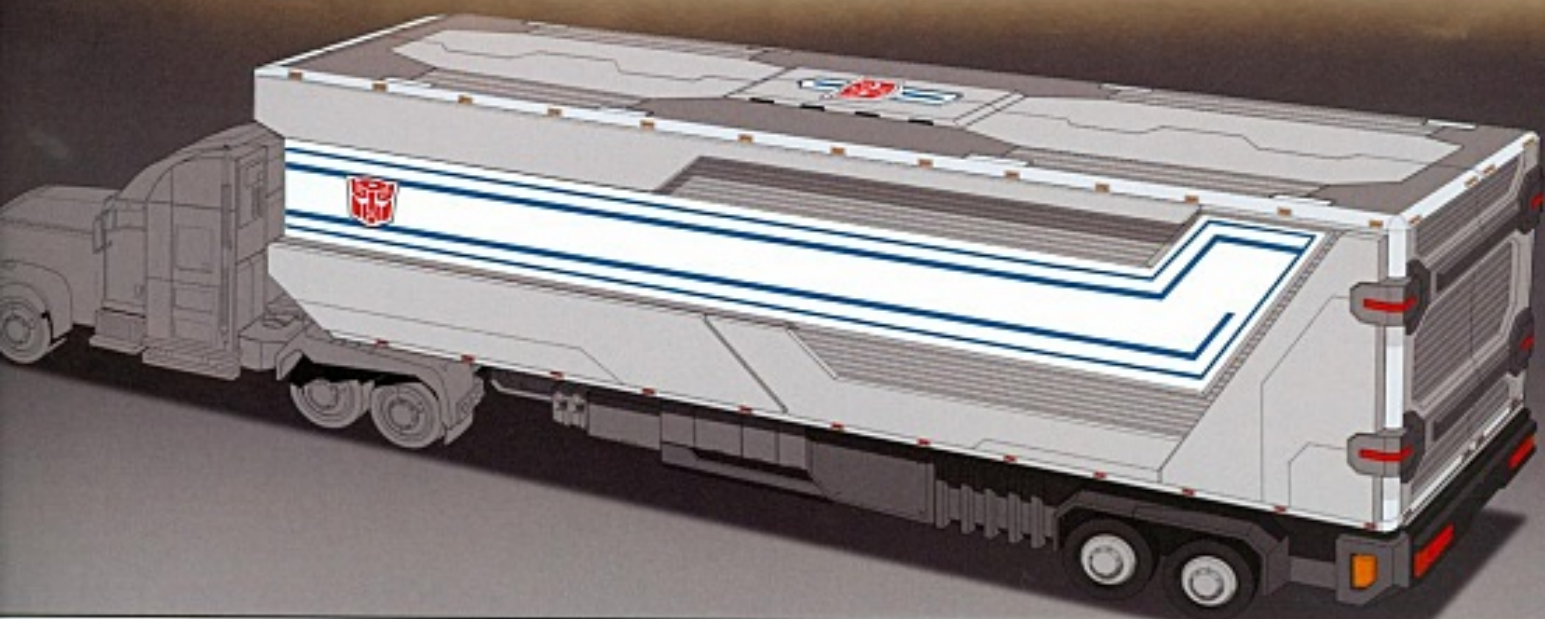
Optimus Arm-Sword Transformation



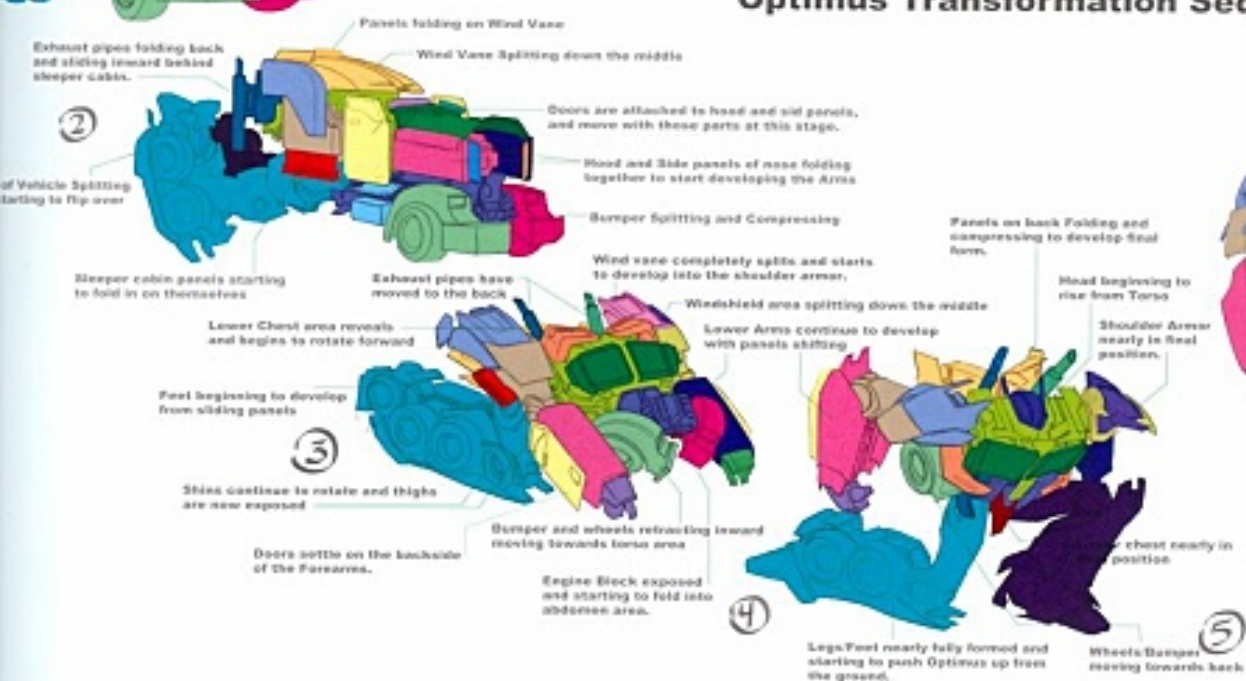


"We wanted Optimus Prime to feel heroic and powerful. His design helped define the language of the design approach for the whole show."
-Jose Lopez





Optimus Transformation Sequence





OPTIMUS PRIME 2.0



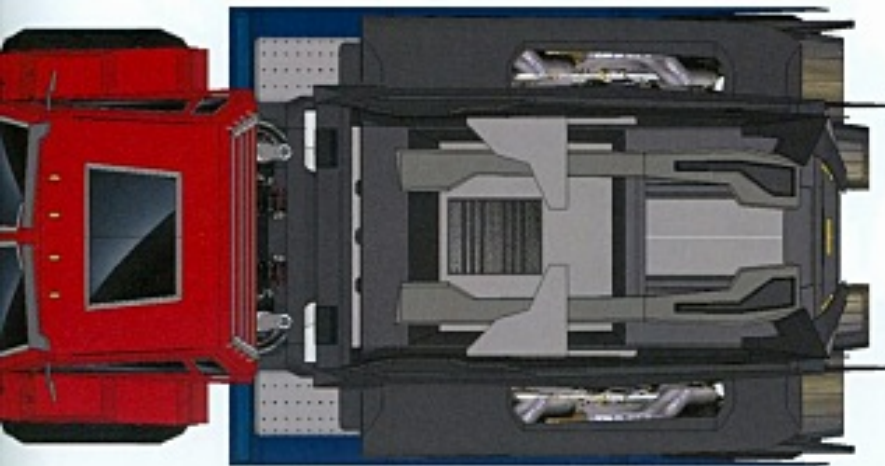
OPEN

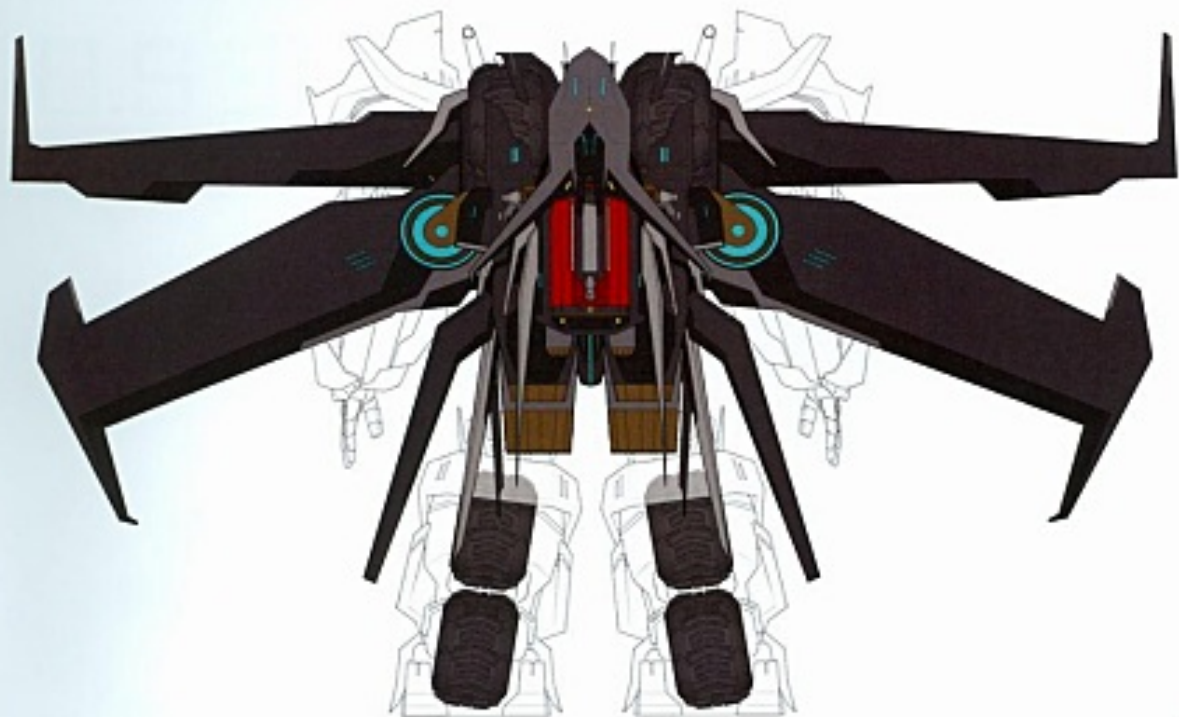


FRONT



CLOSED



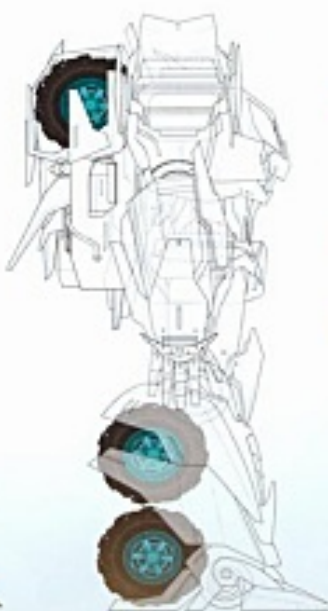
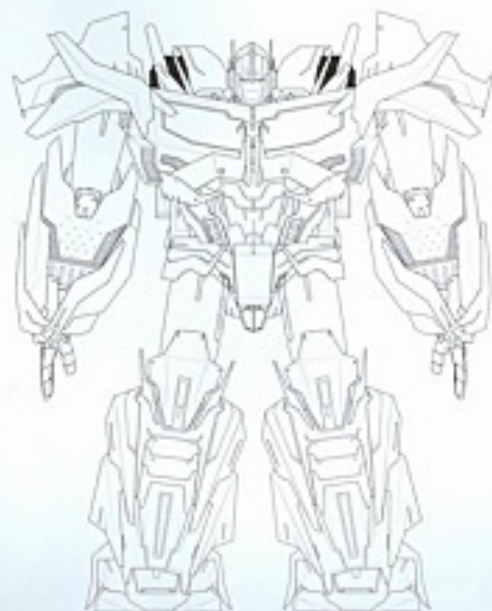


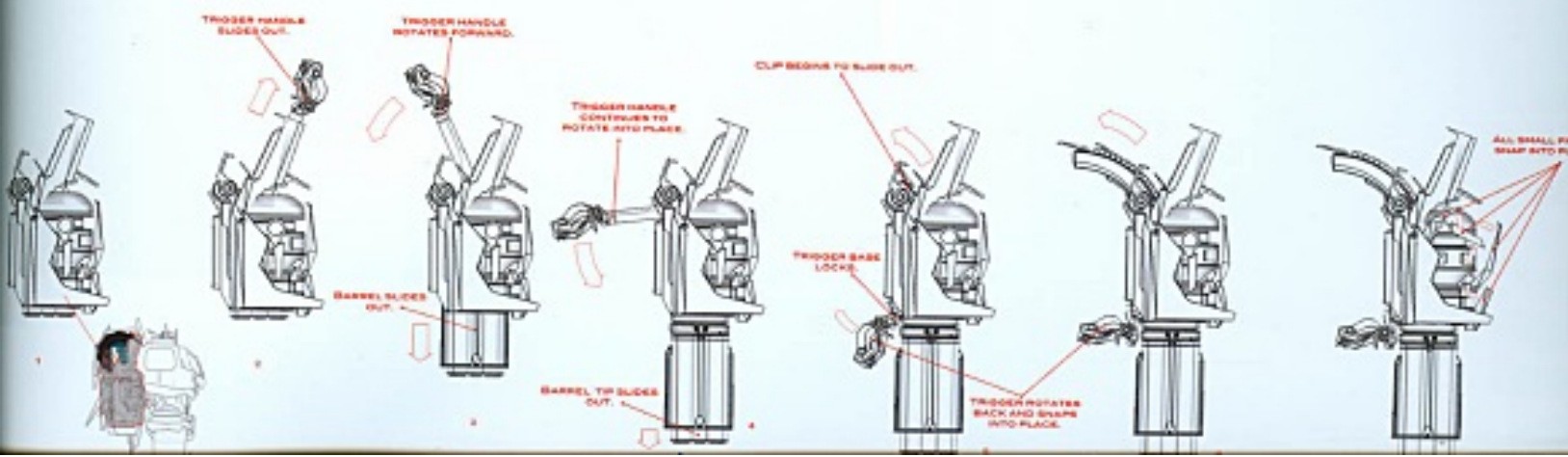
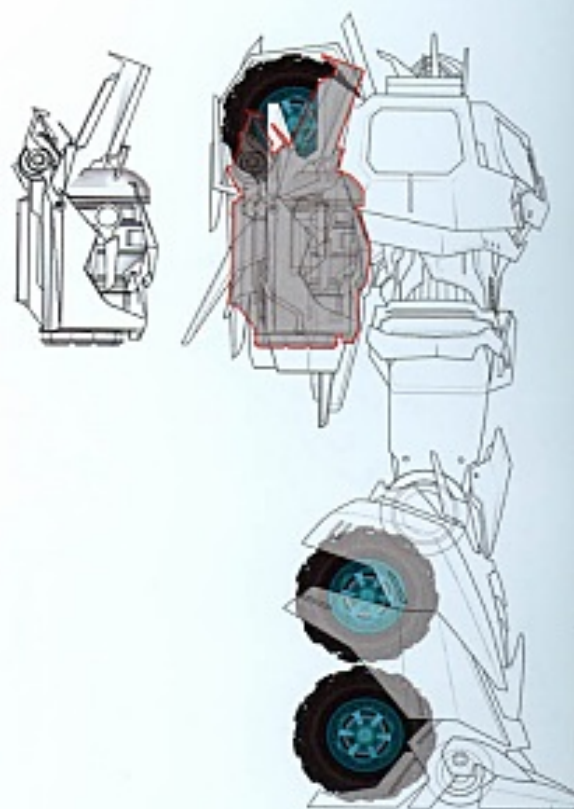
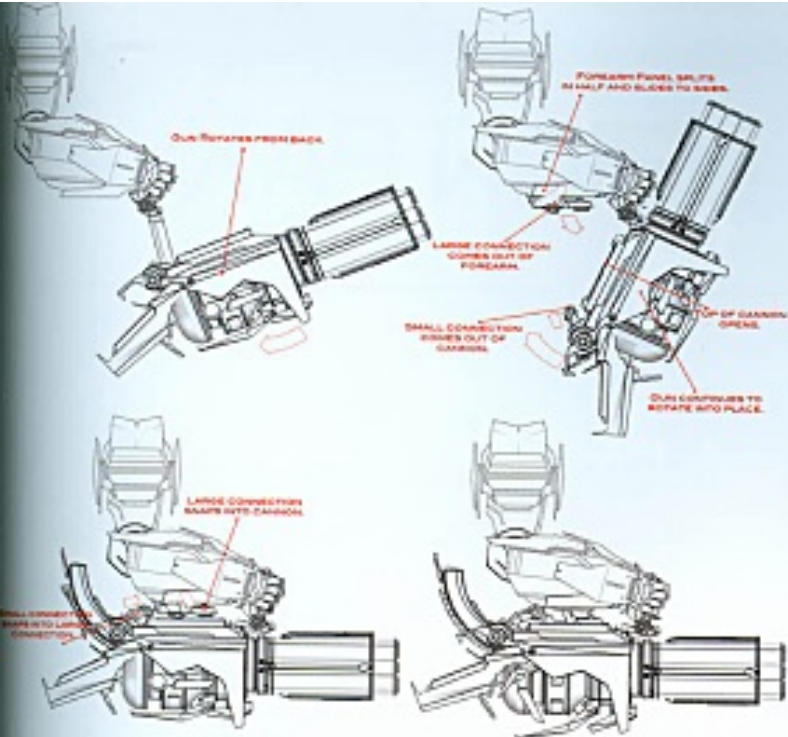
Front View



Back View

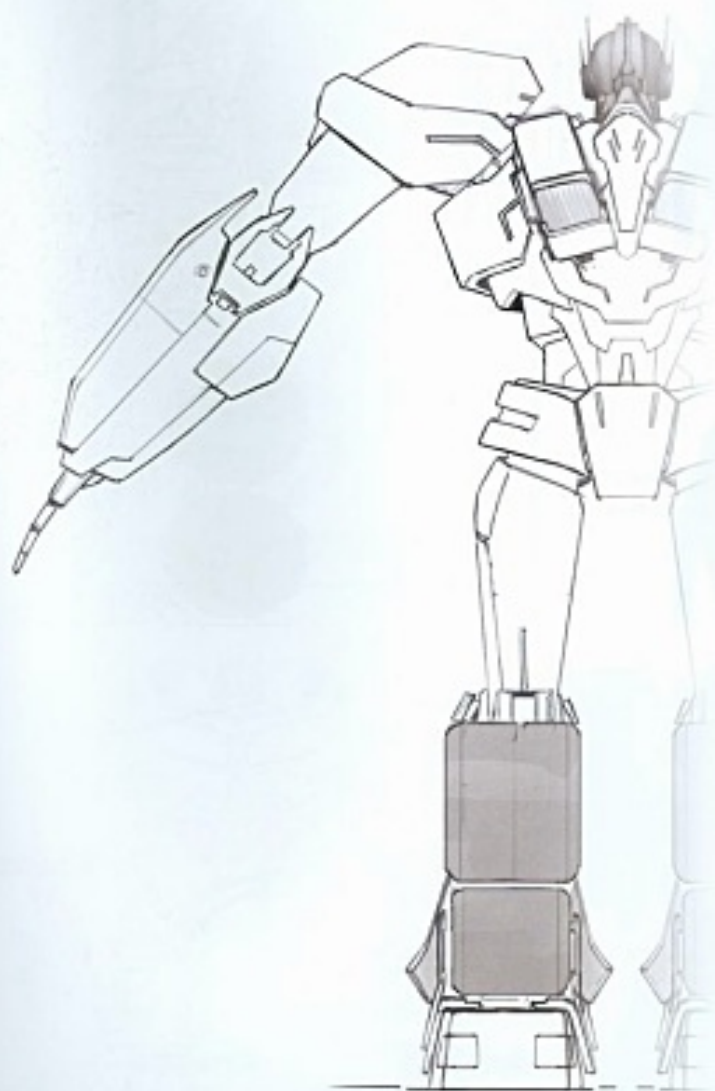
"The directive that was given to me was to 'hulk him out.' Normally I like to slim my character and Hasbro told me that for product that was really hard to replicate. Him I made super thick. I quadrupled the amount of detail on the character from version 1.0." -Jose Lopez







Because of the number of flashbacks to Optimus' days on Cybertron, he is one of the few characters in *Prime* to have a dedicated Cybertronian model. Note the lack of "kibble" in this streamlined form.



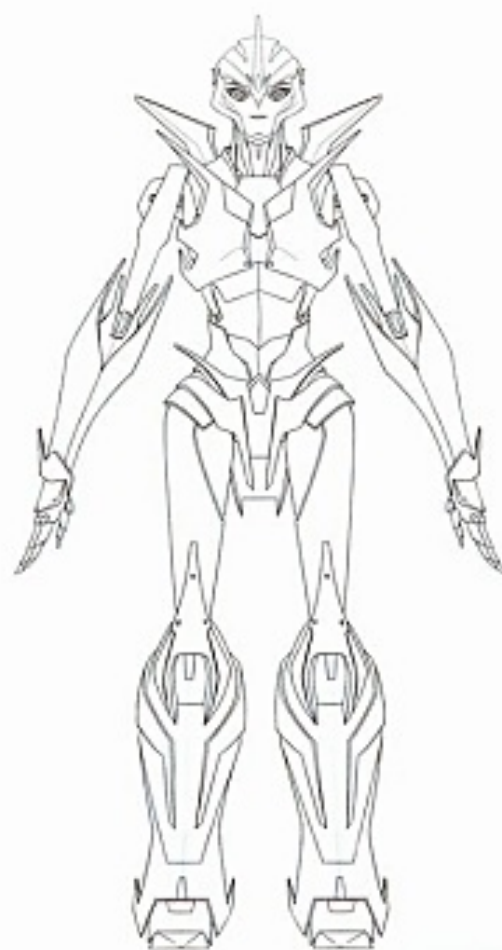
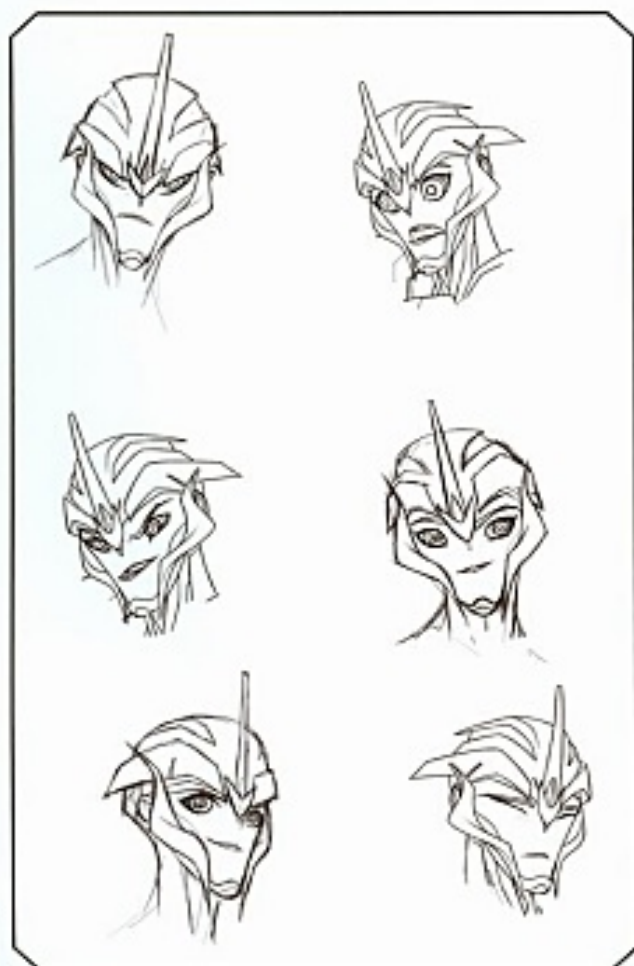
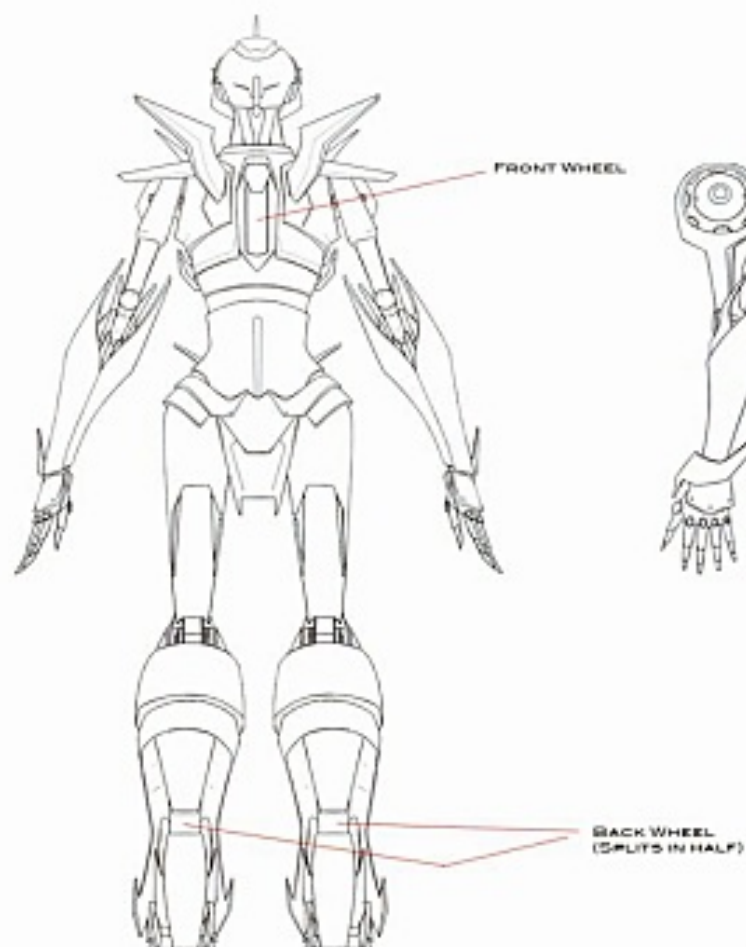
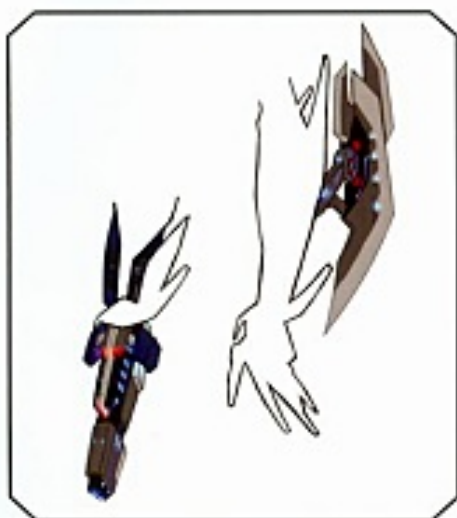
ORION PAX



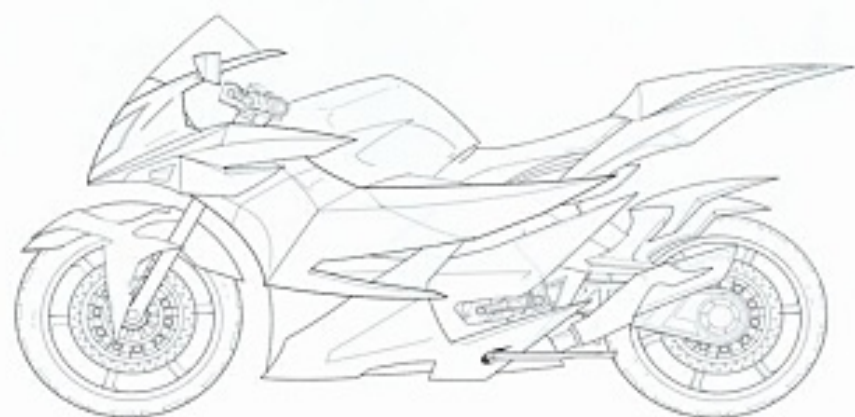
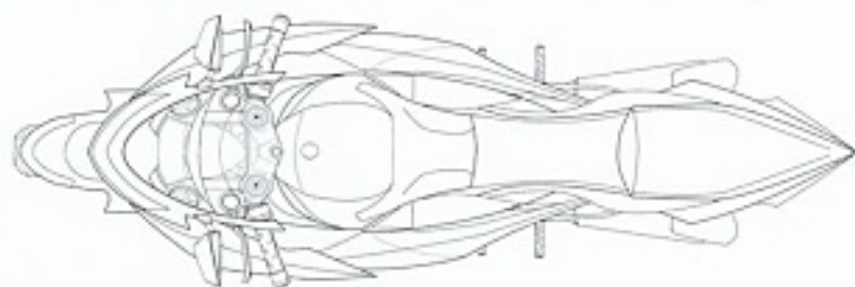


ARCCEE

"We looked at the original Arcee and we decided we wanted to stay away from that design. It was important to me that, for this version, even though she's really tough, she always comes across as very feminine." -Jose Lopez



ARCEE
TURN



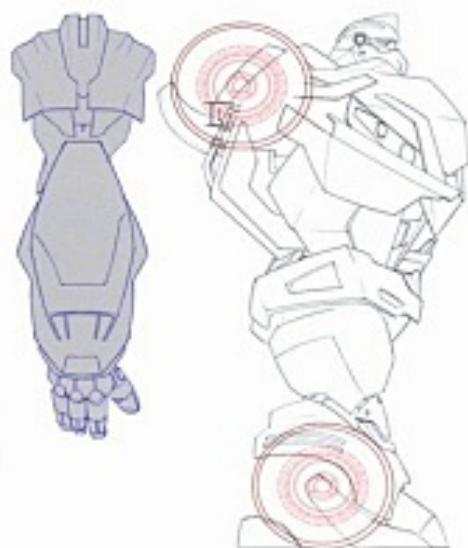
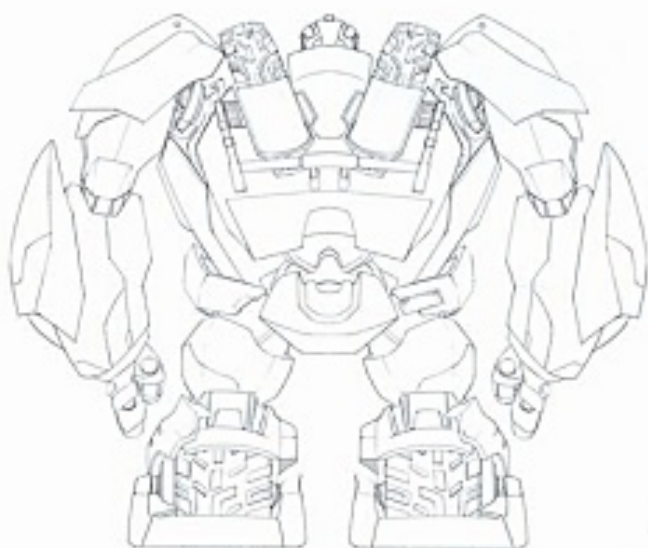
BULKHEAD





NEURAL NET SCAN

"Bulkhead came from *Transformers Animated*. I loved the design that Derrick [Wyatt] did for that show and wanted to keep that feel. There are differences, because the vehicles are different, but I wanted to keep the gentle giant aspect to him." -Jose Lopez



TRANSFORMATION CHART CONCEPT 1



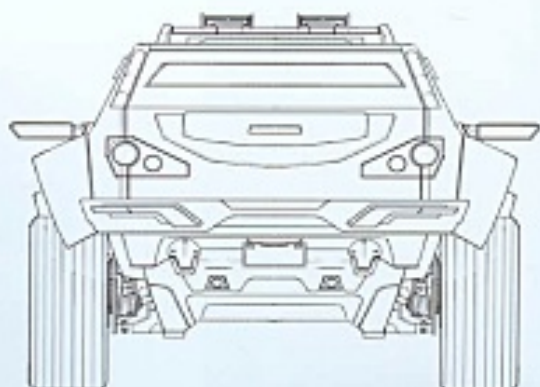
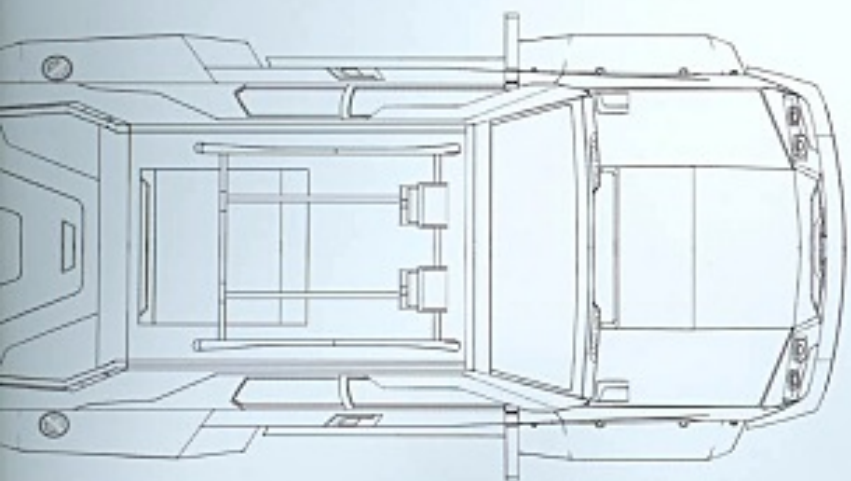
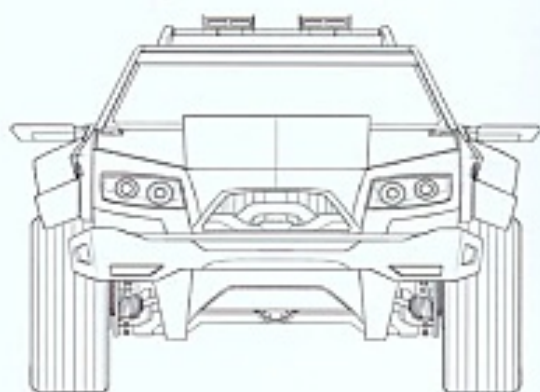
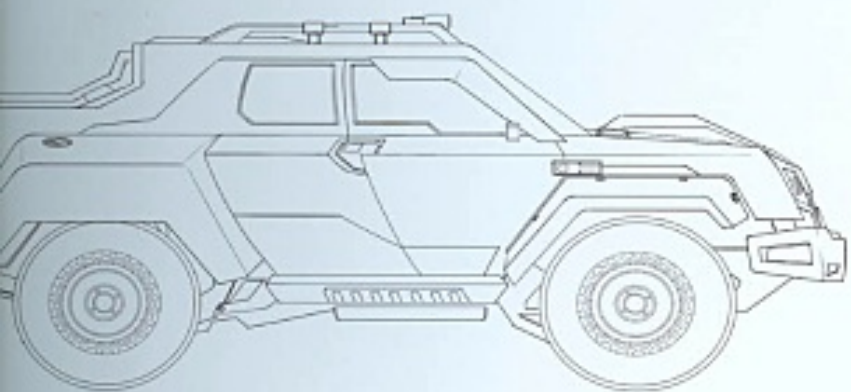
RAPID FIRE CANNONS



LASER AIMING DEVICE

MAIN CANNON

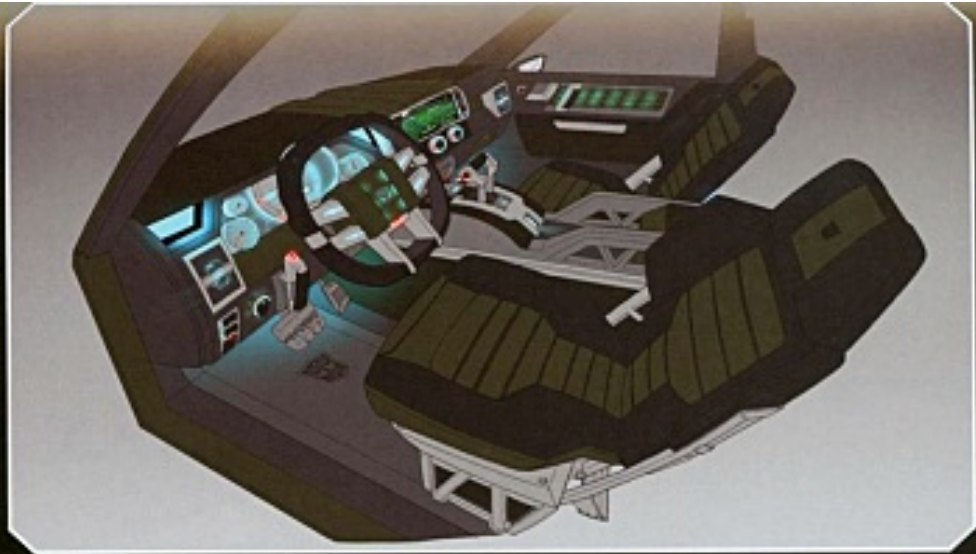
- MAIN PANEL MOVEMENTS
- RECESS PANELS
- WEAPON MOVEMENTS



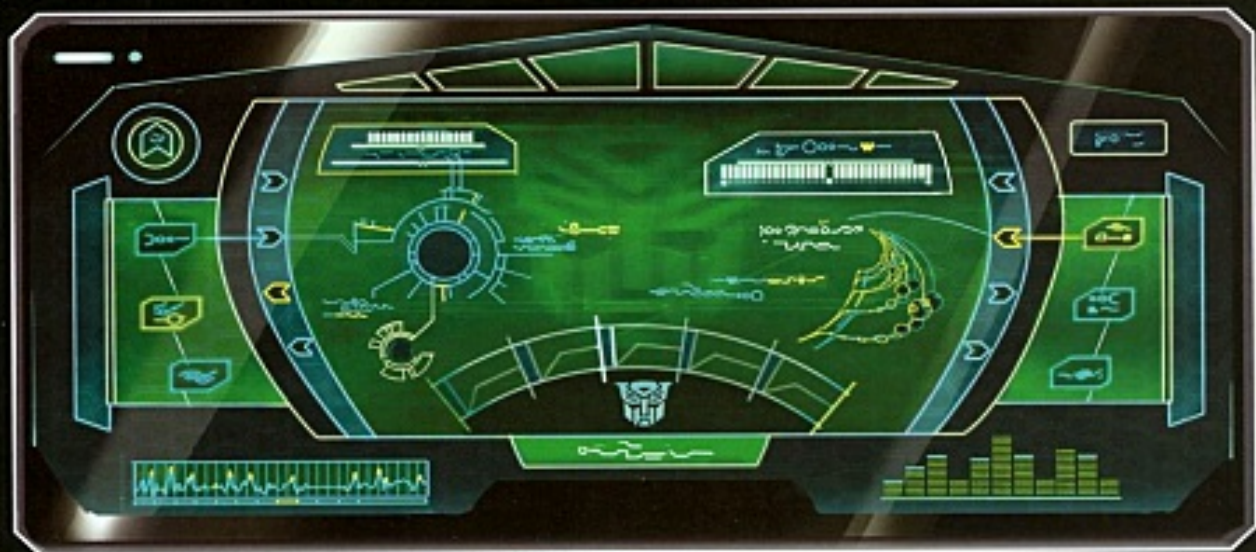
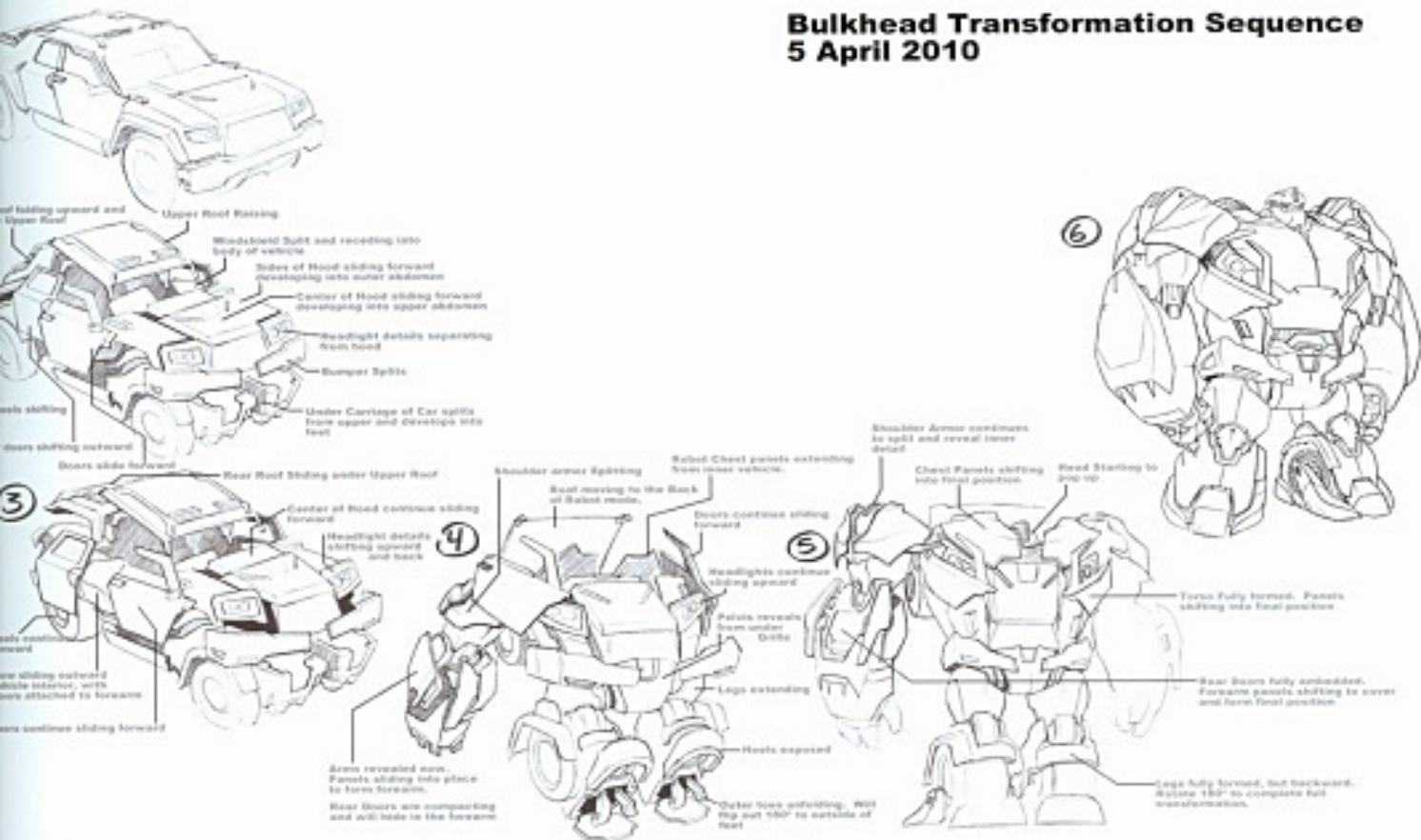
TRANSFORMERS

BulkHead
TF_BULKHEAD_VEHICLE_BODYTURN_V6
A. BARRANCO

"We looked at vehicles and found a Hummer-ish concept we liked and used that as our foundation. We broke the pieces apart to make sure that he had the softness and gentle giant aspects there, but he's a wrecker. He's muscle." -Jose Lopez

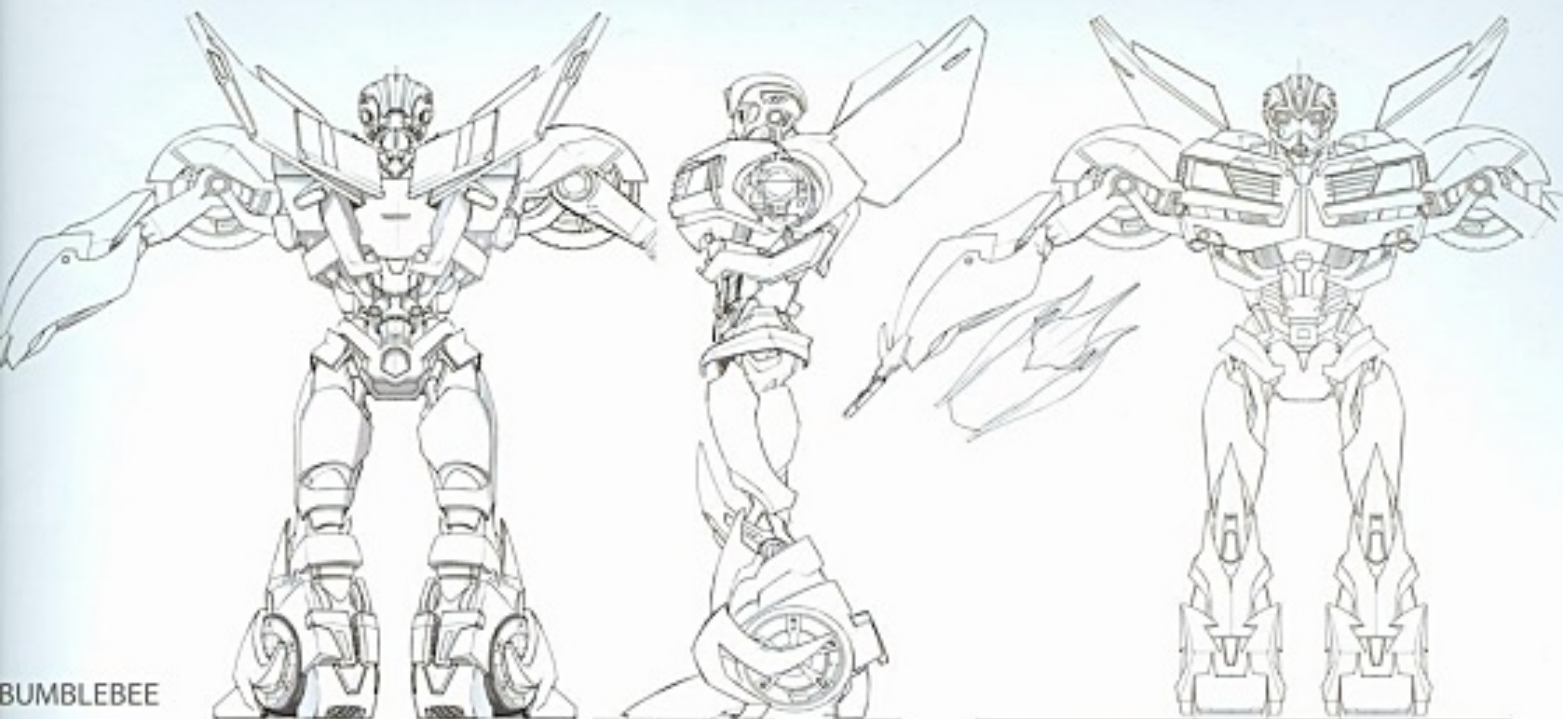


Bulkhead Transformation Sequence 5 April 2010



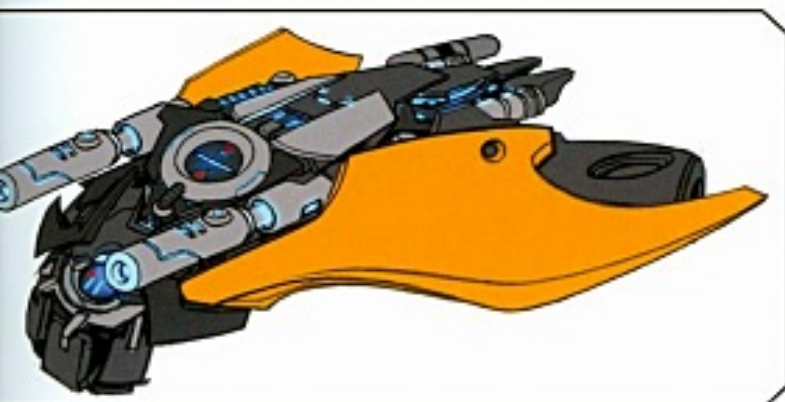


BUMBLEBEE

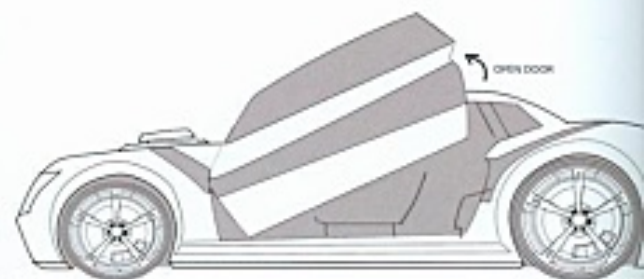


BUMBLEBEE

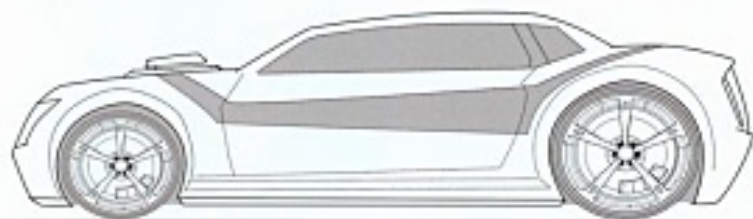
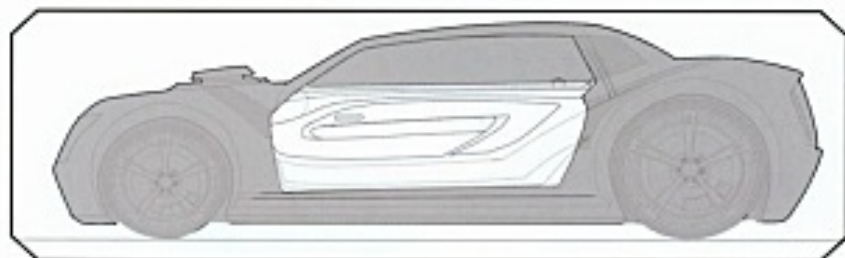
"Bumblebee was the second design that I worked on. Looking at G1, we thought that version was too kid-like. We wanted him to feel tougher. We liked the personality and energy from the Bumblebee from the movie." -Jose Lopez



"A friend of mine was in New York and sent me a text message of the Bumblebee that I painted on the side of Toys 'R' Us in times square. It was pretty incredible when I saw some of those pictures." -Augusto Barranco



"Him not talking was a big challenge. Once we created a mask for him that everyone liked it all came together." -Jose Lopez



BUMBLEBEE 2.0

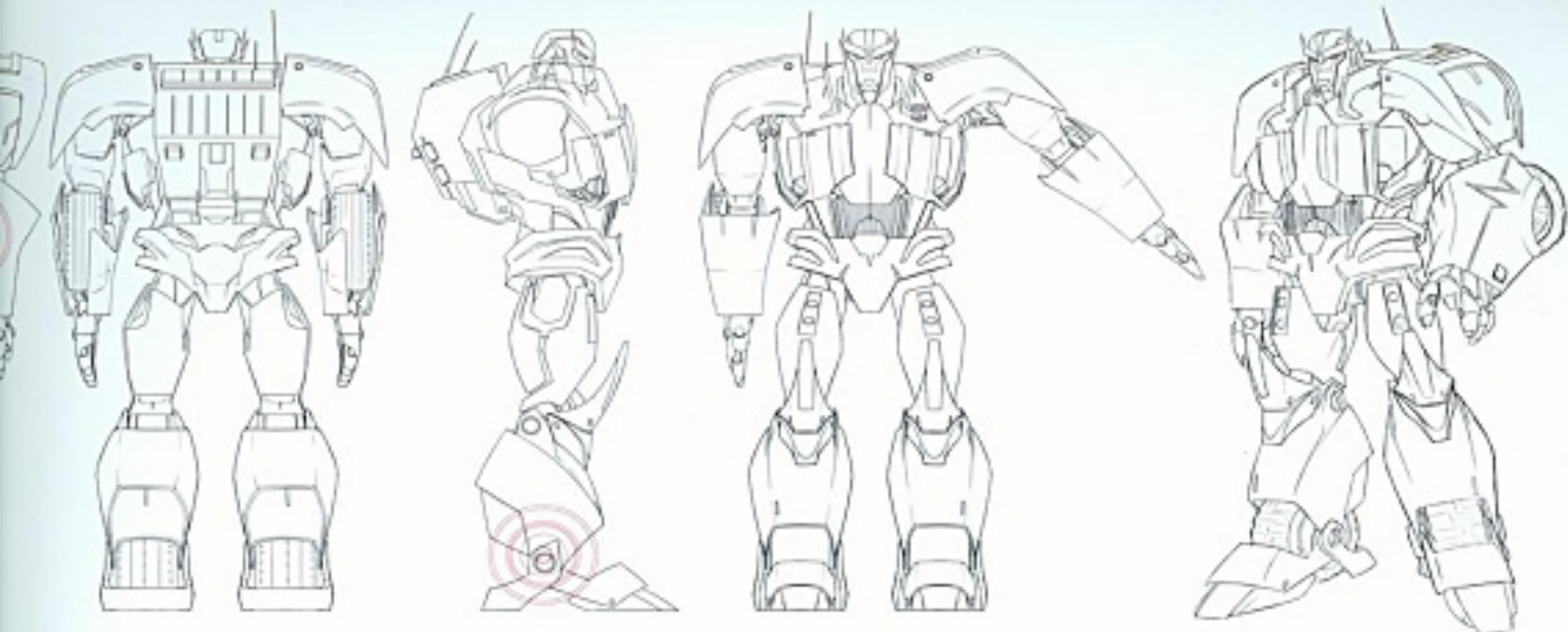


Beast Hunters Bumblebee features a color scheme largely inverted from his season one and two body, causing Arcee to quip that "If I reversed my colors, I'd be pink!" in a tongue-in-cheek nod to fans of her Generation One body.

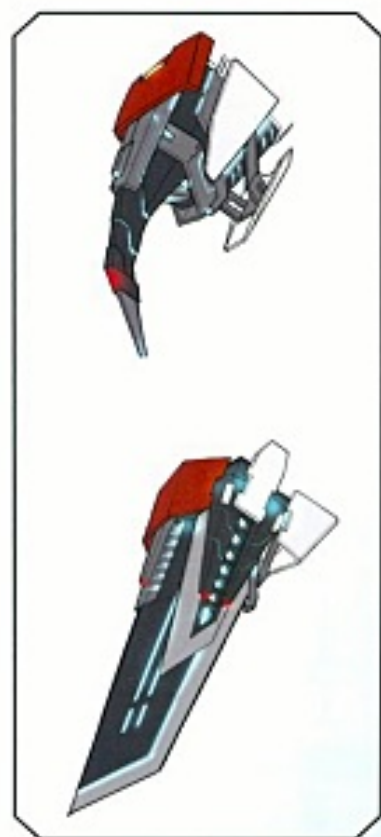
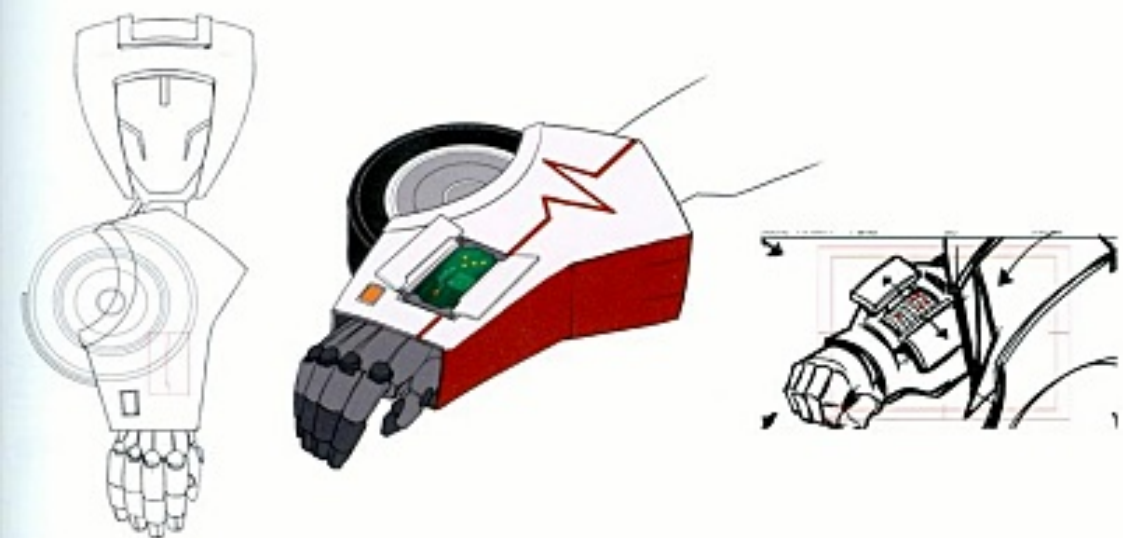




RATCHET

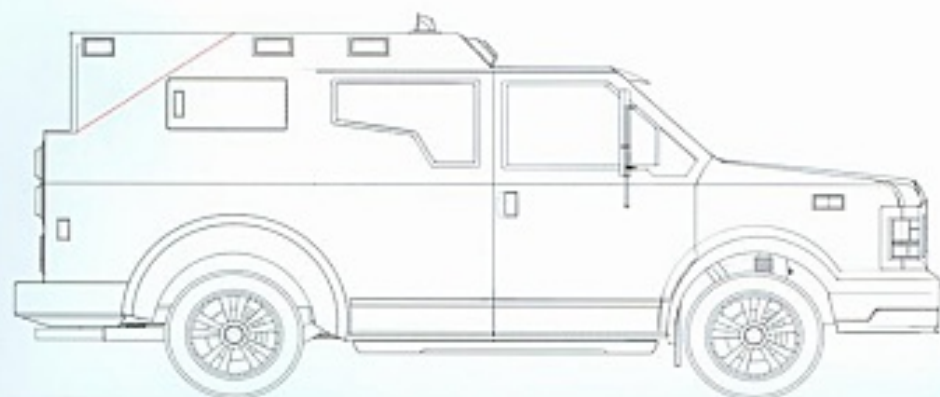
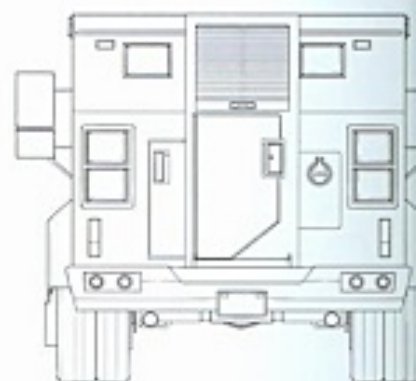
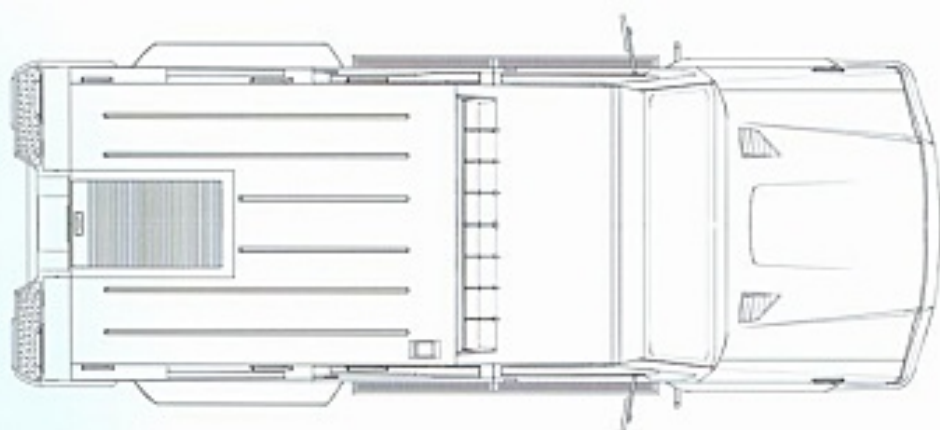


"We used elements to make Ratchet feel a little bit more square, not as dynamic. The way you break the shapes, he doesn't have the small waist. We gave him a bigger jaw, a bit more square. Within the eyes, we wanted him to feel a lot softer. All those elements make him feel a bit older." -Jose Lopez



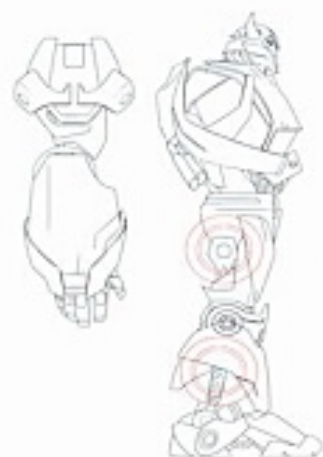
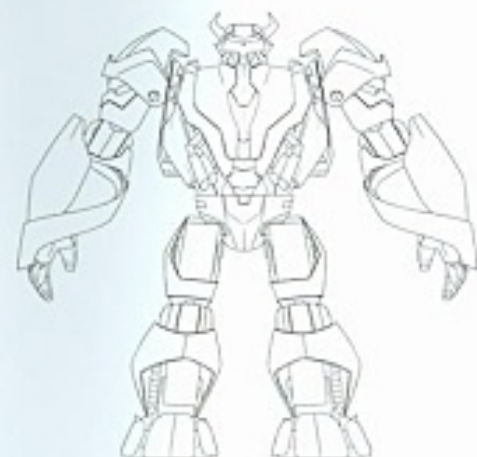


"[Ratchet] was the first character we saw fully rendered in 3D with the lighting and when we saw him we went nuts." -Jose Lopez

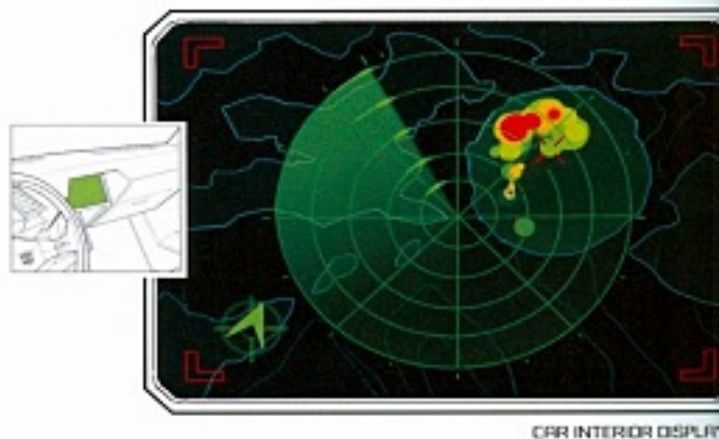
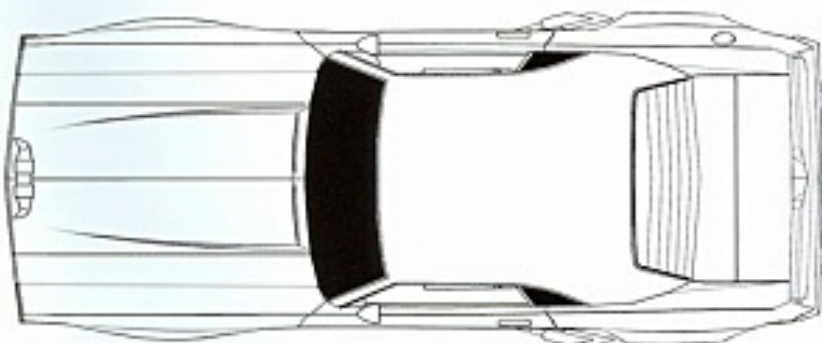
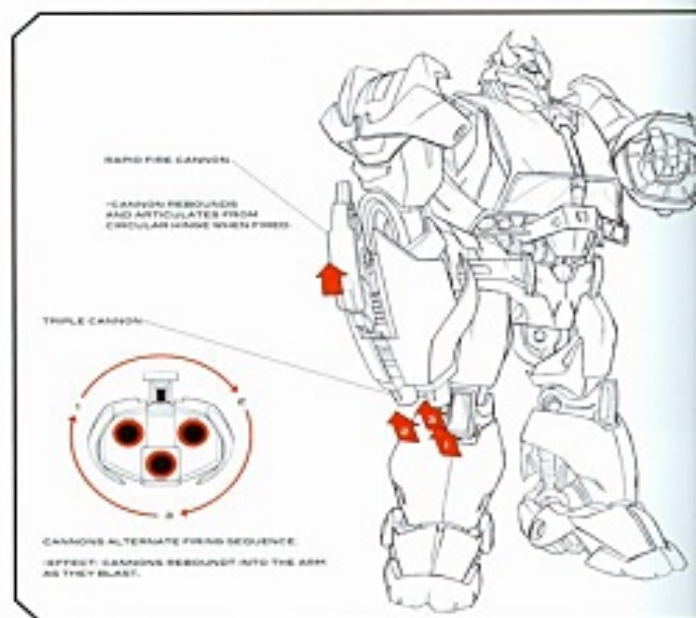




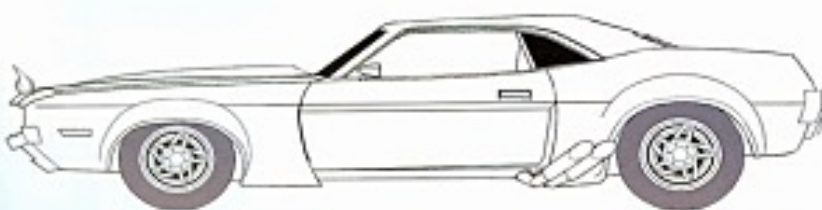
CLIFFJUMPER

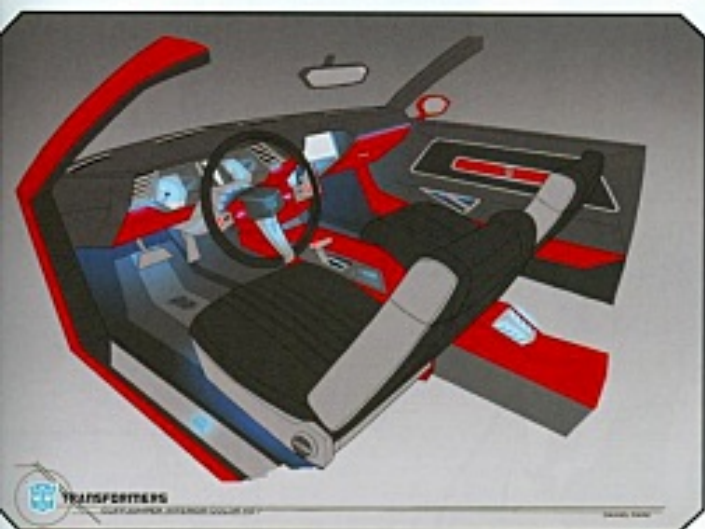


"Cliffjumper was interesting because originally we based him on the G1 version, a compact car. He was like that for a few weeks, then, one day, after a lot of work had been done, Jeff told me that the Rock was doing the voice so I should make him a badass muscle car. We didn't have time to redo both modes so we only tweaked the robot mode. That's why there are a lot of round shapes on the bot but not the vehicle." -Jose Lopez

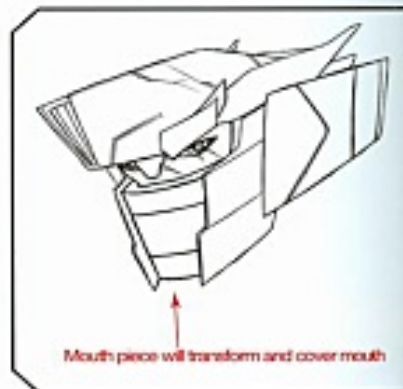


CAR INTERIOR DISPLAY

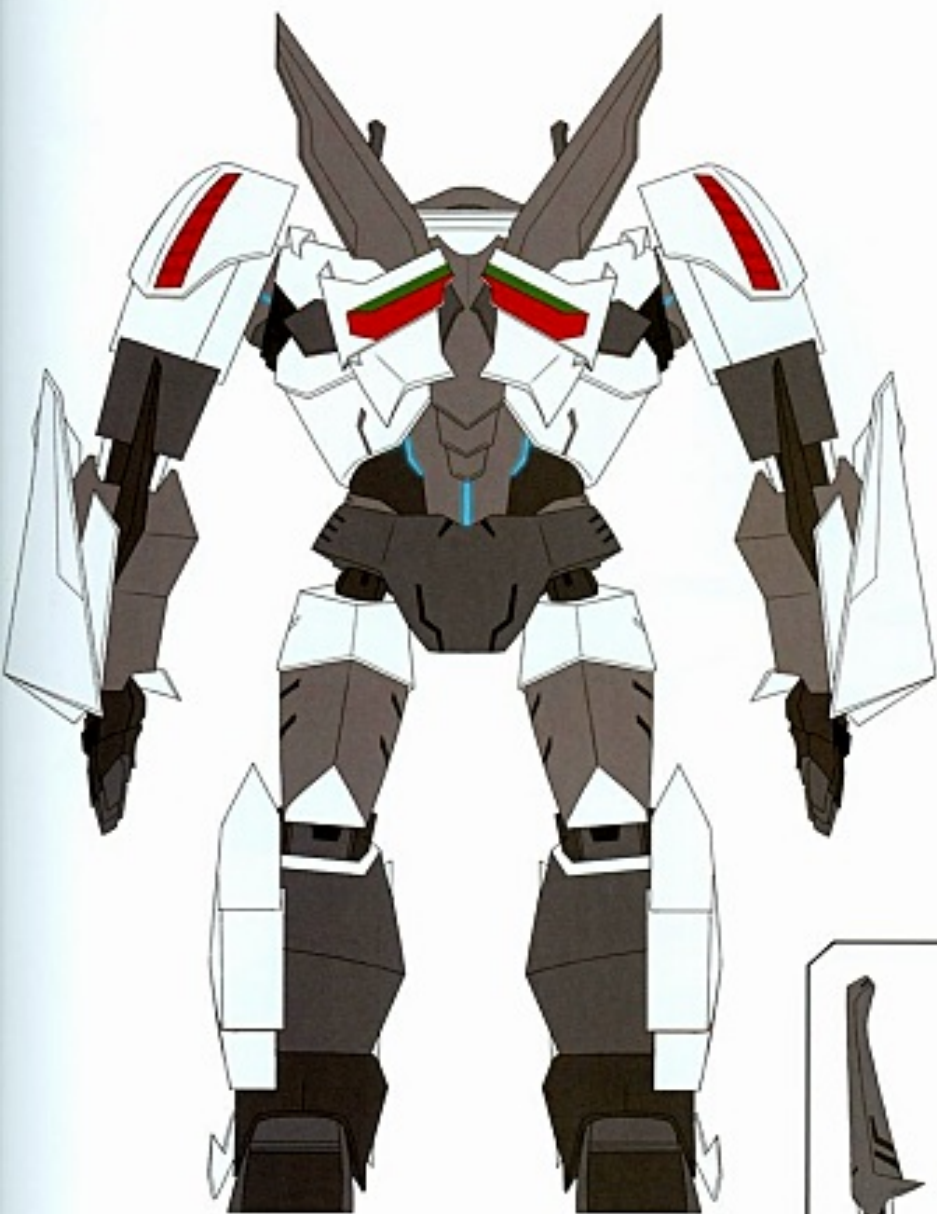


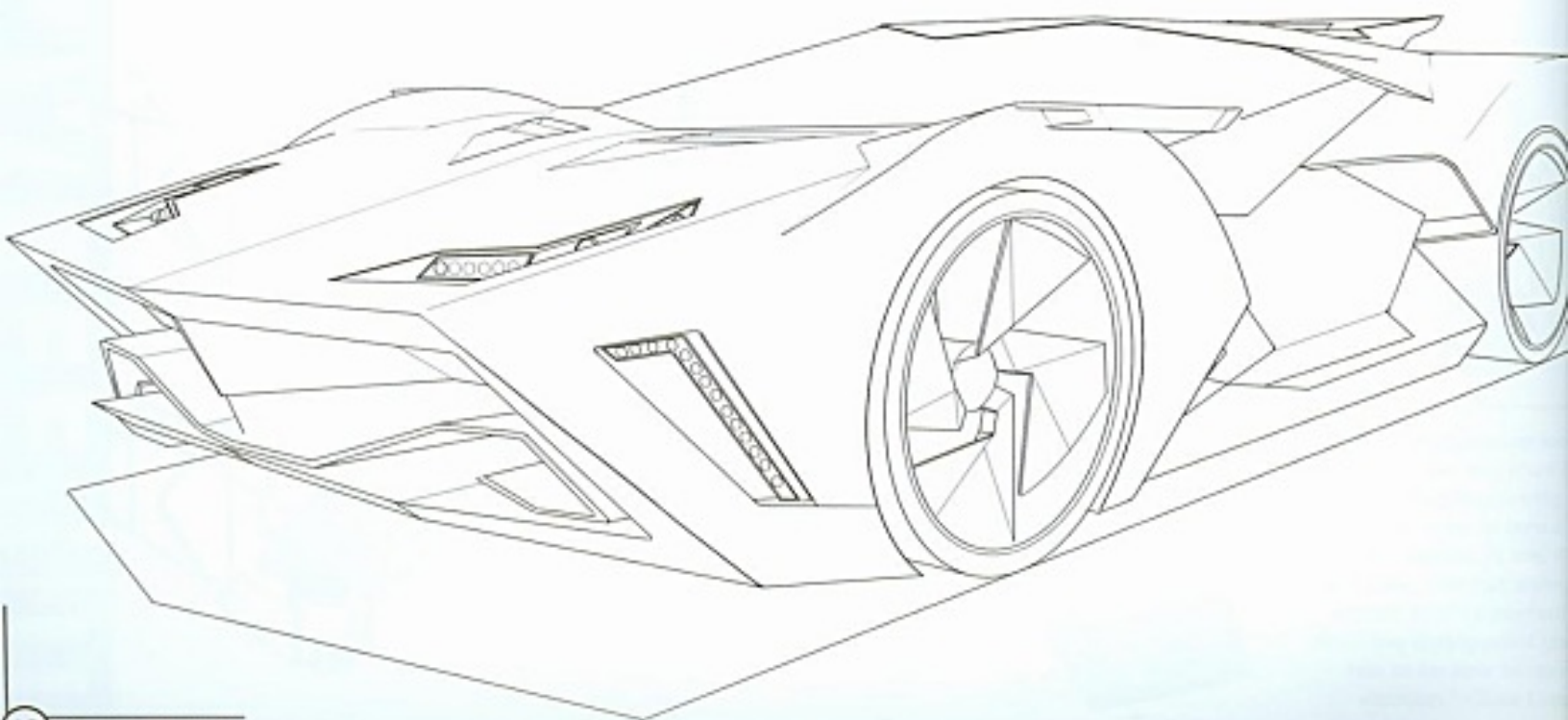
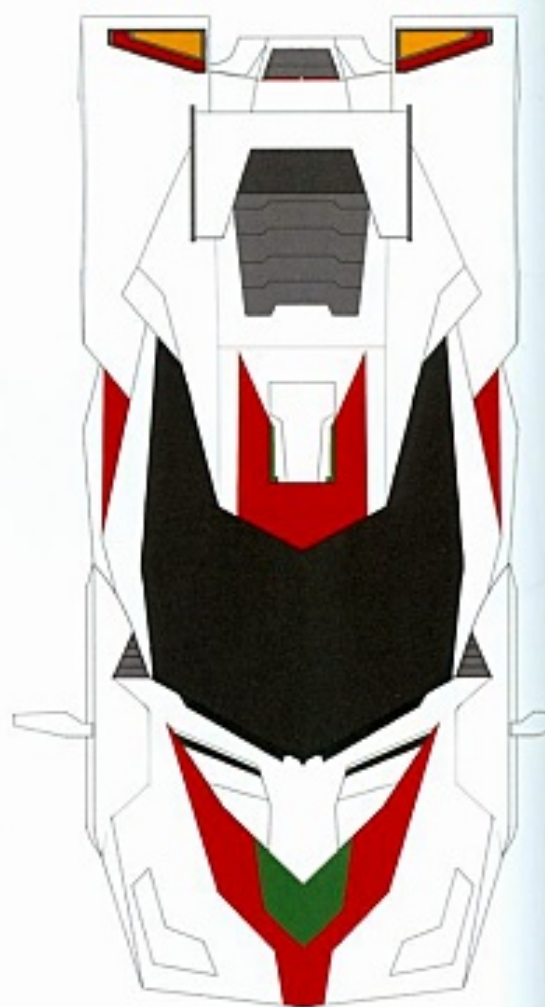
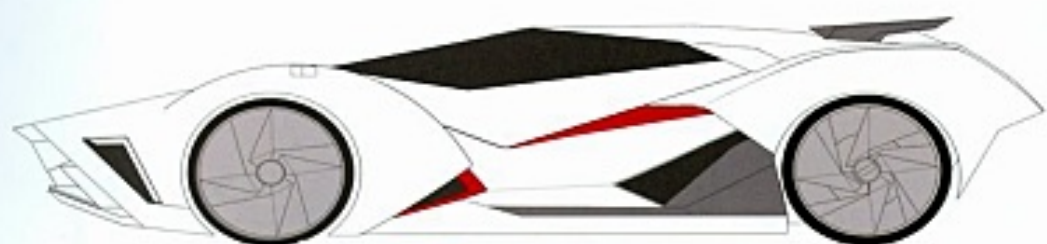
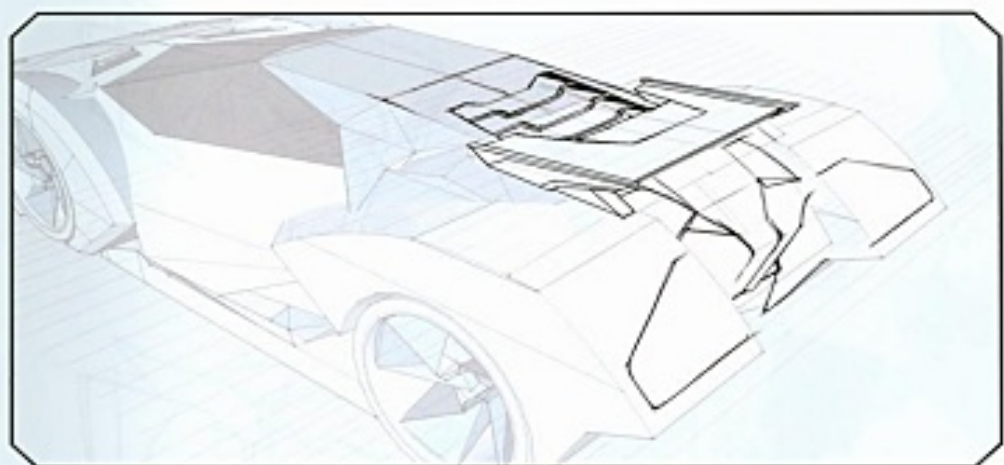


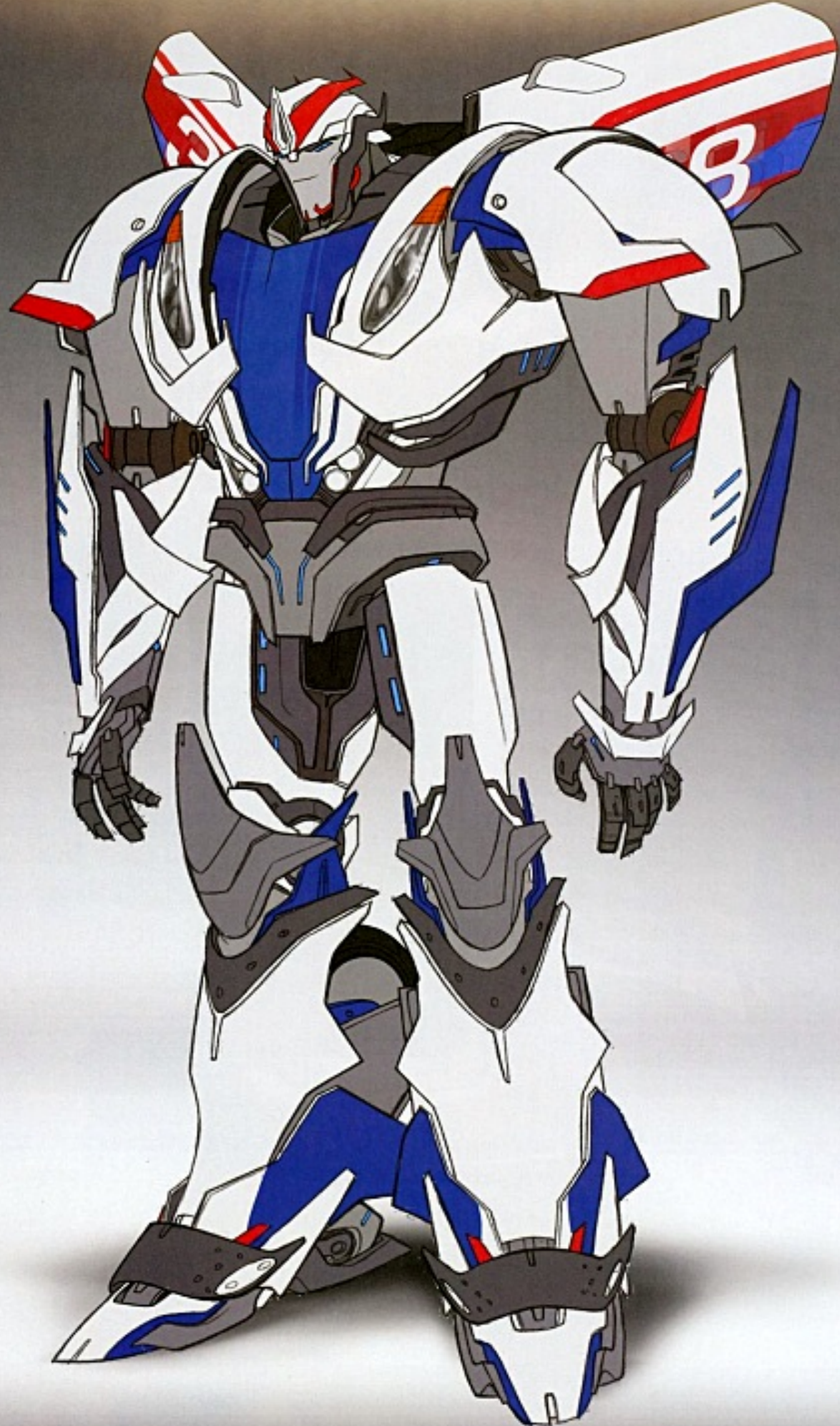
"I was already upset that they killed [Cliffjumper]. But turning him into a zombie was something else... I twisted his legs, gave him fangs. It was tough on me, because I'm a G1 guy, but it was fun. It set the tone of the series." -Walter Gatus



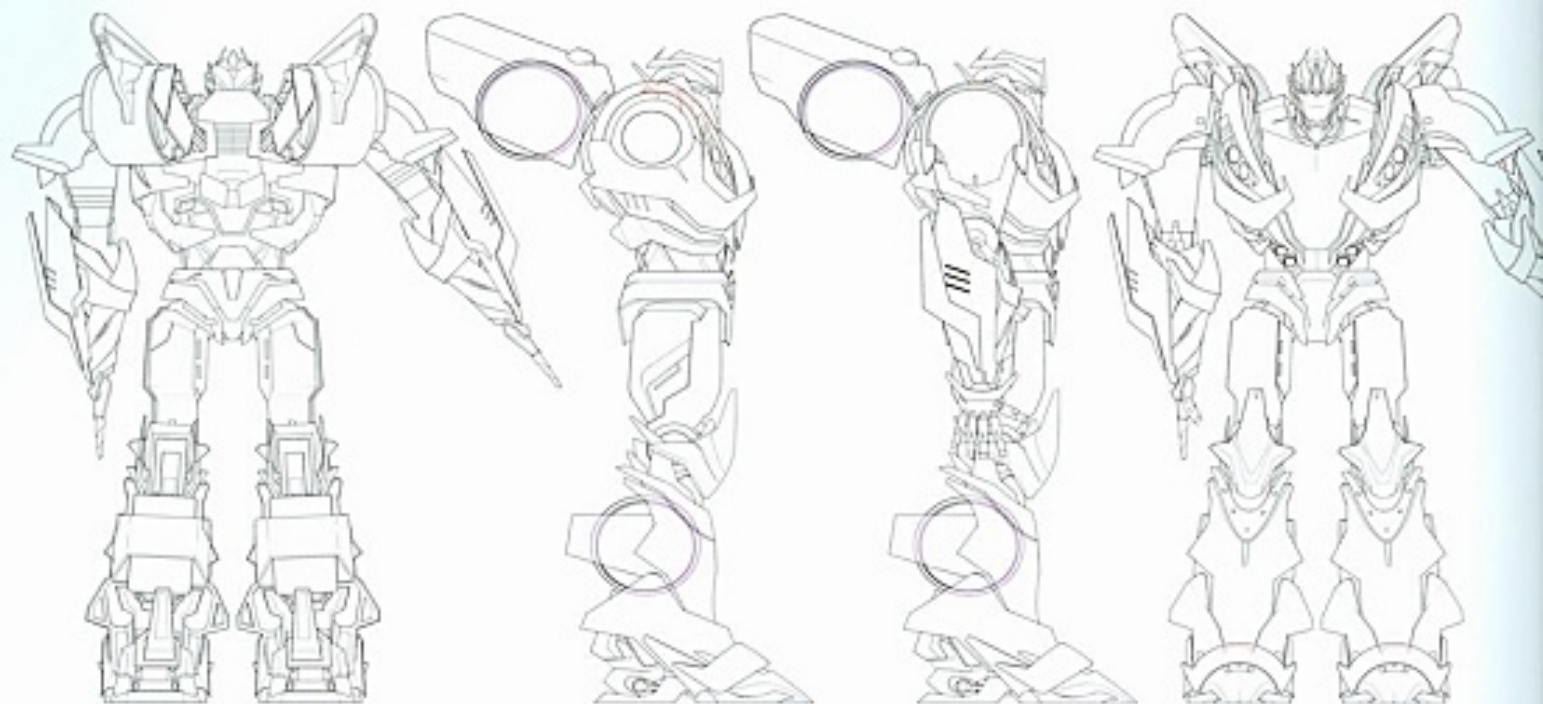
"For Wheeljack we looked mostly to the toy from 1984. We kept everything pretty much the same, even in terms of transformation. To me, if you can get away with not giving a character a mouth, he'd be perfect from the acting point of view. I want him to be able to convey emotion." -Jose Lopez







SMOKESCREEN



EARLY SMOKESCREEN COLOR CONCEPTS



Parts separate for transformation





"You start grouping guys by the sort of characters they are; Smokescreen was going to be on the Bumblebee team so he should have a similar body type. This informs the design process. Then you do little weird things to make him unique. Like, you want the doors to transform into wings like Bumblebee, but on him the wheels cut through the doors." -Jose Lopez



SMOKESCREEN 2.0

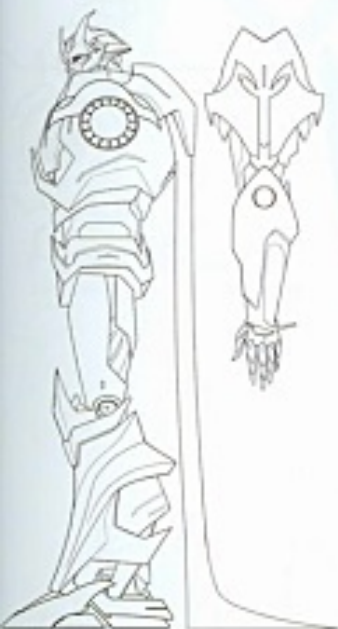
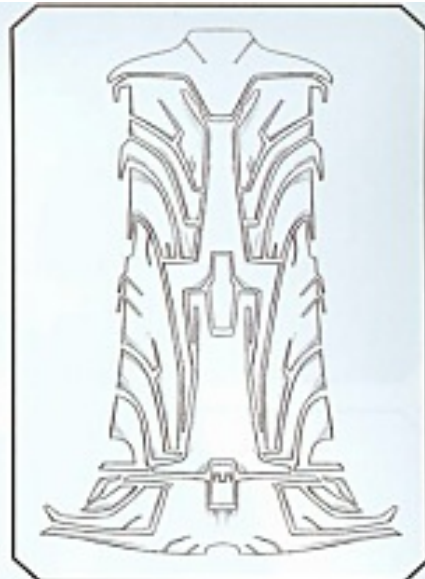
Smokescreen is another character who revises his color scheme in *Beast Hunters*. His new design is more reminiscent of the original Smokescreen's colors, though it drops the classic number 38. Even the number 7, though, is an allusion to an earlier Smokescreen toy, in this case the Japanese Binaltech toy from 2003.



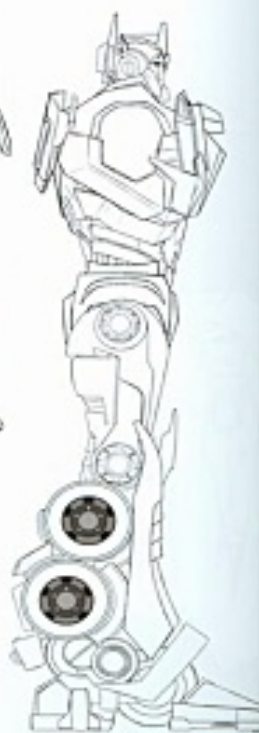
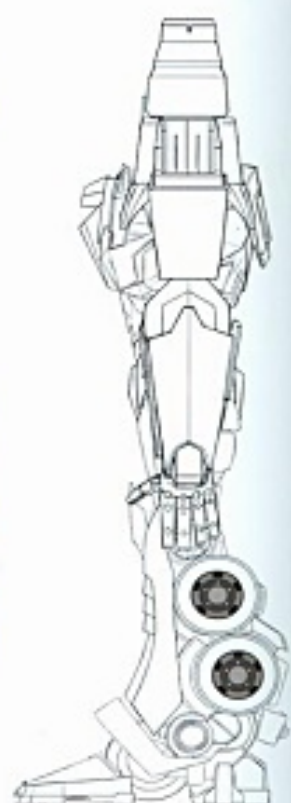
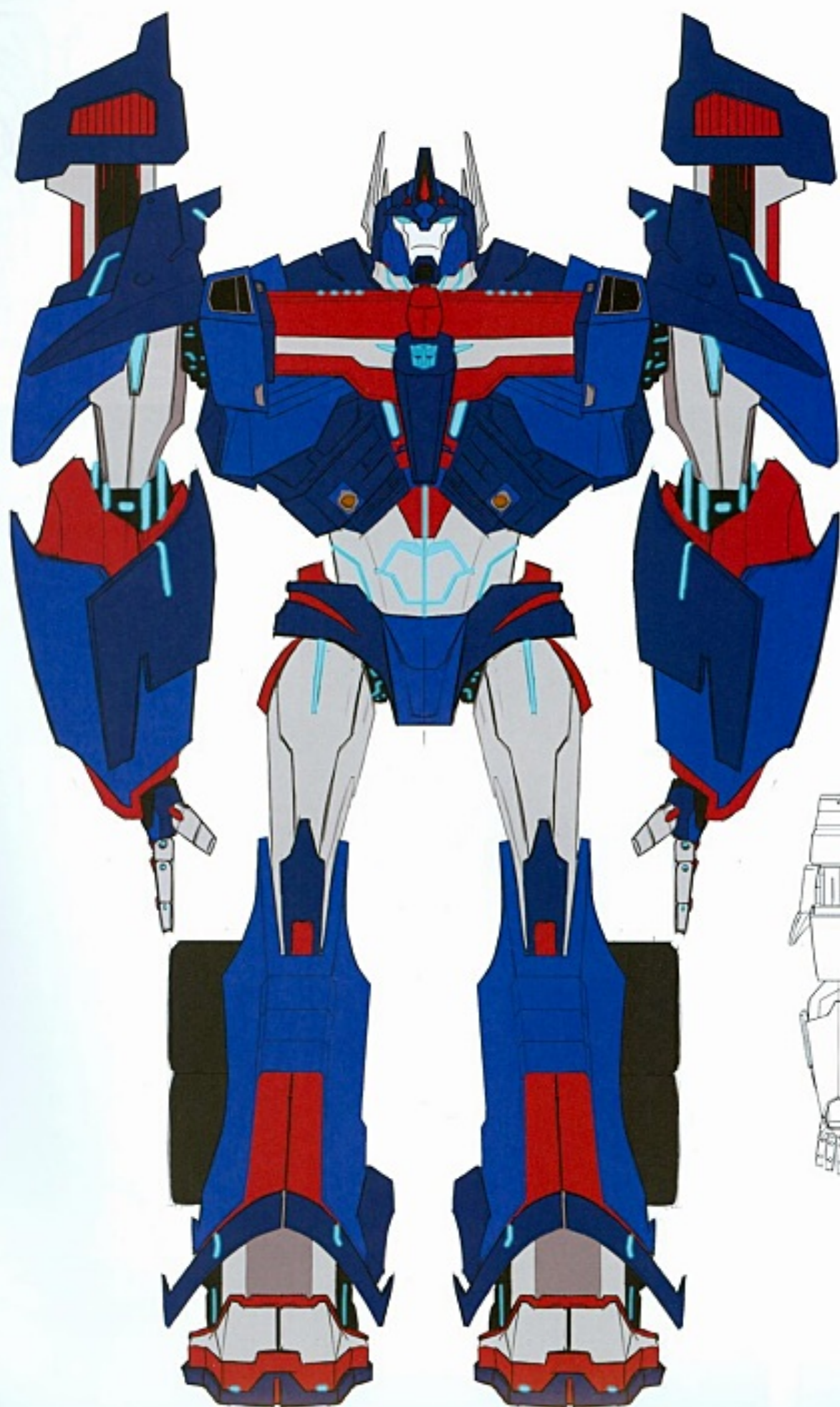


ALPHA TRION

"With Alpha Trion, we had discussions about how to bring in members of the original 13 Primes. They're more regal, their armor is more elaborate. We want them to look like old world Cybertron, not modern with vehicle bits. With guys like him, you have conversations about things like his cape. A cape didn't make any sense to me. A giant piece of cloth, but he's supposed to be metal. So I made a cape for him that was made of pieces of metal. We also had conversations about the beard; I liked the beard on the original version of him, so we kept it. The question becomes, how do you keep him humanoid but make him still feel alien?" -Jose Lopez



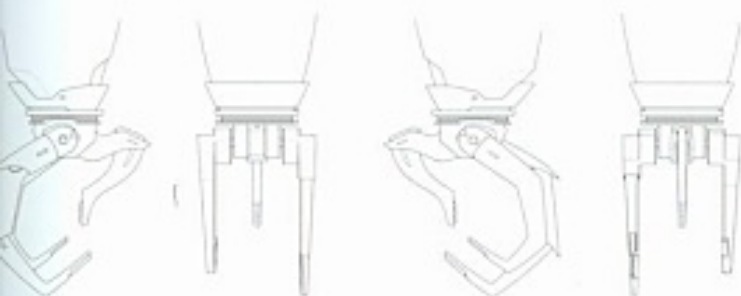
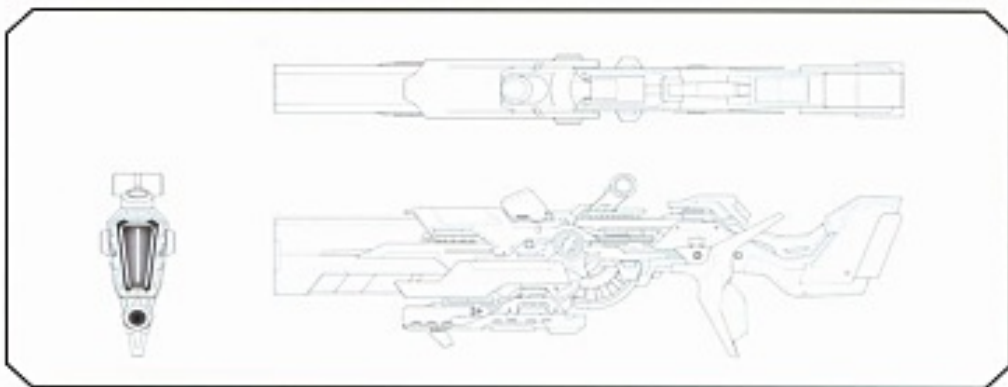
ULTRA MAGNUS



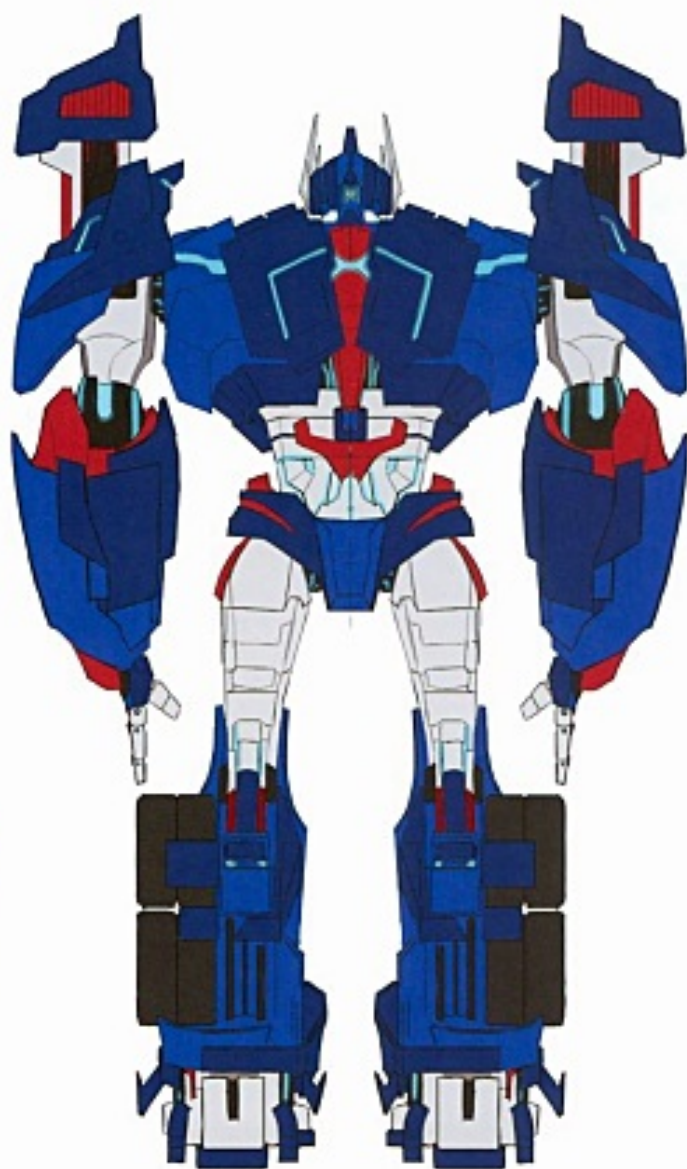
"I was really just trying to bring back what G1 was—a bulked-out Optimus Prime with giant shoulder pads. We tried 2 or 3 different color schemes. One was very G1, very bright red and white, but we muted it down to something that fits more in with the *Prime* universe." —Walter Gatus

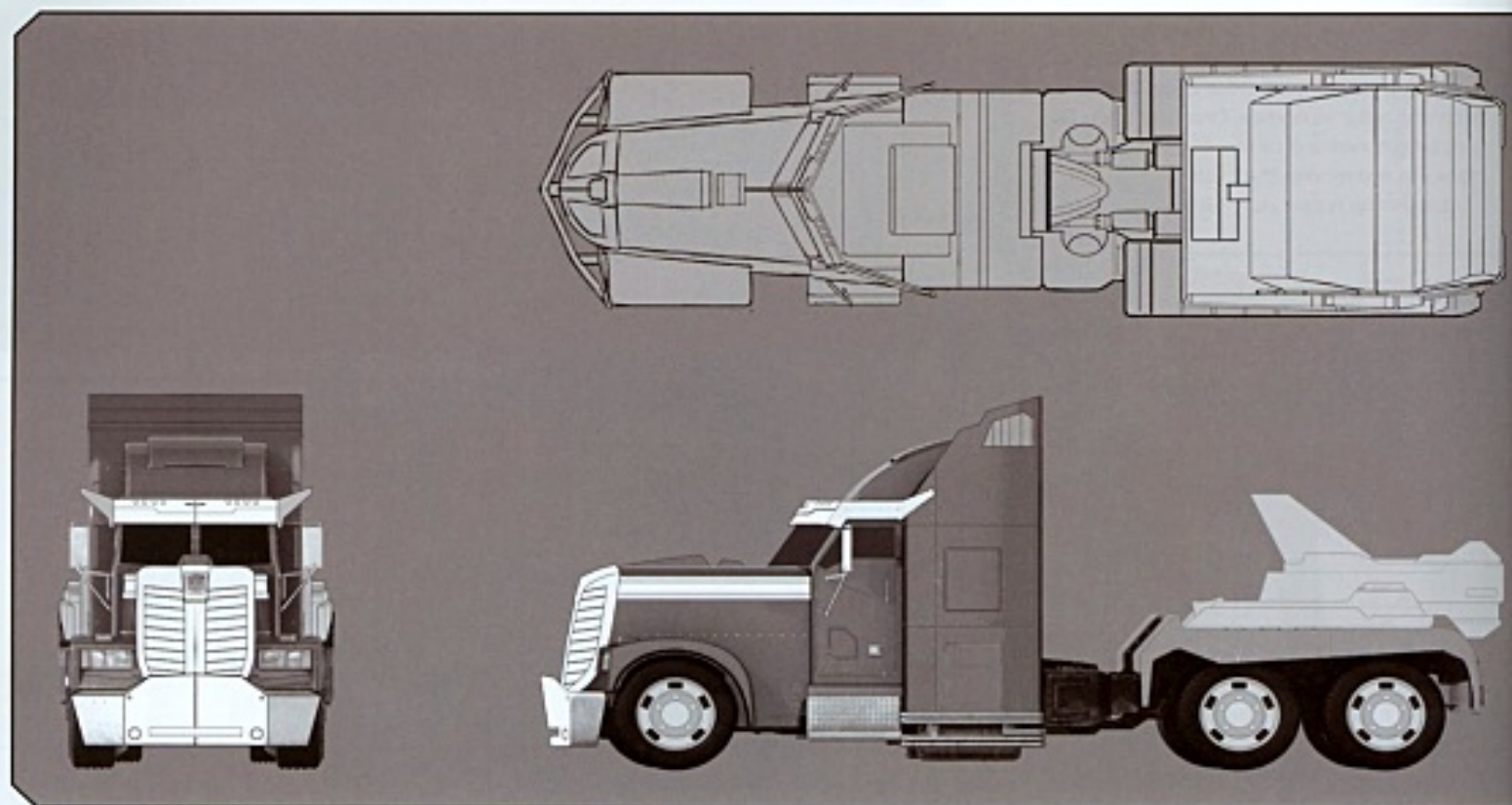


MAKESHIFT HAND REPLACEMENT



CYBERTRONIAN MODE





David Hartman - Supervising Director / Art Director

What I love most about the characters, besides the fact that they are giant robots that turn into vehicles, is the story scope. Everyone has their own character, their own personality and I don't feel like we dumb it down for kids. You know, like in *Show One*, we kill off a fan favorite

And you're talking purely visual acting which is not easy to do in animation.



From the very beginning that was one of the largest question marks hanging over us. These being robots, how are these expressions going to come through? In the Bay movies they are broken into lots of pieces and can get a lot of expression that way. We weren't going to go that far but at the same time we didn't want to go for that classic cartoon "squash and stretch," either. We wanted this to be based in a cinematic reality so that was our biggest hurdle that our sister studio, Polygon Studios, was tasked with animating this whole thing.

The main reason we went there was their acting abilities and Jeff and I had worked with them before. To me that's always their biggest strength, subtlety, the slight raised eyebrow, the head tilt—it tells the whole story. It's just the little subtleties that bring these characters to life. To me, the way the mouths move—is it going to be a robotic chin that kind of drops down? That's when we made the decision to go with alien metal that's a little more malleable. We didn't want to go for a puppet hinge on the mouth—we wanted them to have softer expressions when needed. A good example of that: Arcee, when she talks about Cliffjumper—you can actually see the sadness in her eyes even though they are just blue robotic lights. It means a lot to me—I think that subtle acting takes them to the next level and makes them more human, in a way. Even a subtle shift of weight from one leg to another can show somebody's unease.

How much of that comes from the boards, how much from the voice actors and how much from Polygon?

I think that it's 33% each and 1% luck! Everybody contributes but it depends on the scene. If a storyboard artist really likes a shot they'll put a lot of detail in and give very clear instructions and that is based on what they are "seeing" from the voice acting, but there are scenes where you have to get from this point to that point and an animator will go "You know, I want to try something here," and it turns out to be awesome! Like if someone is running they'll put in a little trip to just show a little vulnerability. And then you see the shot improve. It's not just a wasted shot of someone going from here to there—you gave them some business that added just a little bit to the character—now we know they're fallible—just a little clumsy and that little subtlety, that every shot has something in it. That's really cool.

Do the animators or storyboard artists ever look at videos of the voice actors performing?

We did at the very beginning but some voice actors, to get the emotion, go big with the facial expressions and sometimes it's too big for the animators. So we did at the start but over time the characters became

their own thing—no longer solely the actors' voice or Jose's design—they become their own character—they exist as their own entity and then we're sad when they die.

Do you remember any instances of getting something back that wasn't boarded that maybe surprised or impressed you?

One—there's a show that for all intents and purposes is a clip show where Megatron has entered Starscream's mind and he's talking to Starscream and there's this image where Starscream's remembering when he thought Megatron was dead and is trying to take over the Nemesis and Starscream is going "I can't hear you!" and doing this little hip show, which was unscripted and we were going, "We have to keep this in, it's funny. It's bizarre, but it's Starscream." That was something the animation team did on their own.

Another thing is that their love for the Miko character always comes through. In Season 1, show 18 or 19, they're in a cave and there's been a cave-in. There, Bulkhead's holding this giant rock up but Miko's slowly dying—or she thinks he's dying—but there's this complete crying breakdown scene. That was one of the pivotal points where you push a character so far and see if it works or not. That was always our intention but it was in the back of our minds that it could come off as silly or not as emotional as we'd hoped. Luckily it worked—I thought it was pretty emotional.

What exactly is your role as art director and supervising director?

I work with pretty much all the design team and all the storyboard and directing team. I oversee all the animators, all the designs. I get to put the crew together for our artists. For the art director side at the very beginning I did a few pieces to kind of show Kurtzman and Orci and sell everybody on "Let's go for a cinematic look."

When I've worked in CG before, what tends to happen is you set up a world of lights and your characters move within that world. I wanted to get more light per shot—that cost a lot more money, a lot more time and then you're rendering a lot more. In my mind, that was what was going to set us apart from other TV CG shows. Feature films will light as they need but on our budget it's a lot more difficult to do that. Trying to set up a scenario and a world where we could have the time to do that was pretty important to me so I did a couple of pieces to show that off.

Of course, then you're hiring a team to do that, whose style can adapt to that and whose style will look really neat in that environment. Jose Lopez was brought on right away. I worked with Jose on *Jackie Chan Adventures*—I've always loved his stuff and Jose's a great guy—I was thrilled he could be part of this. Even for him there was this learning curve—to have to go into this world of robots that have distinct, iconic looks.

I brought him in, I brought Vince Toyama, who I've worked with for ten, fifteen years. Vince is very detailed in his work and it's very architecturally driven. Instead of doing a design and going "that's cool," he goes "this measurement is this high, this one is this long," so The Nemesis is to code. Of course, on a CG show that's very important and Vince has this understanding—we've got these giant robot characters—one's 18 feet, one's 28 feet, we've got human characters, we're going to want them to look at each other and you don't always want a birds-eye or worms-eye view so we'd have all these landings and stuff. Vince is really strong at making it work in a practical way so that everyone can use it. Then we brought in Christophe Vacher. I've never before worked on a show with someone in that role. On a more traditional 2D show you'd have the color department coloring the black and white art but with Christophe I wanted it more like a live action show and it's all done with lighting. So Christophe goes in and paints storyboards up with key scenes, key effects, then he sets up the lighting, sets up a mood but the lighting is constant and very cinematic. We call him the Lighting Supervisor—we





didn't just want to call it color because there's a lot more to it than that.

So as those guys do the designs, my job is to manage it, oversee it, make sure the look is gelling. Then we work with Duane, with Jeff and we make sure everybody's part works and everybody's happy while keeping the look and the style consistent because you could easily have people with a million different styles merging and it doesn't always fit, so we try to make sure there is consistency there.

So as I'm doing that there's the Supervising Directing—taking the script, working with the directors, figuring out the story and what we need to focus on, what our beating is. At least at the start it is, but then these guys get a handle on it and work directly with their storyboard artists. Once we've done that we do a storyboard flip where we go through the boards and make sure the story's working. I usually do that with Duane or Jeff, then we go in and do an animatic. I oversee that—I also usually do that with Duane or Jeff.

Then, when the animation is back from Japan we do an edit pass—I sit with Jeff and Duane and fine tune our edit. We make sure the story's consistent throughout and work out if there's something we should be foreshadowing.

When you say "foreshadowing" do you mean "visually foreshadowing?"

Yeah, just knowing where the story's going to go. I'm not, unfortunately, working on one episode at a time. Animation comes in pieces and sometimes it's six to eight episodes at a time so trying to keep these stories straight, what the shots are—there's so much going on. You've got to be cognizant of what happened the episode before but you're pretty much doing that when you're storyboarding. One director might not know what another director is doing. If I've got three directors all going "I've got this great idea for an epic shot that goes all around and then ends up on Megatron's face", well, three of those, three episodes in a row won't work so it's about looking at things like that. But I also mean foreshadowing like something that looked good on a storyboard

or animatic may, when it's animated, give too much away. For example, seeing Predaking when he appears and only showing his footsteps. At first if we showed too much of a face or something it would spoil the reveal for the next episode. Things like that are little, but when you have eight-hundred shots in an episode, you can tend to miss things.

So after the edit pass the networks and the executives at Hasbro all take a look at it—broadcast standards and practices—then they give us notes of something we might have missed—a technical thing that may be an issue, a license plate number or signage that may be a legal issue. Then, after that, with Christophe we do a color correction pass. We send it out of house, get it color timed, toned down a little. All the Nemesis stuff, for example, comes off really pink and we actually blue it down more to be a cooler, more callous place.

Then my favorite part is when I get to do the sound mixes. I work with Brian Tyler and his assistant Bob Leidekker. Brian does the score—he's a big film composer and he's one of my favorite composers of the modern age so getting to work with Brian was a big deal for me. Doing the sound mix you can tell a story in a completely different way and with my sound mix we always try to find one moment in an episode where we do something completely different, like all the music disappears, but we try to hide those moments too, if you don't notice them it means it's working but sometimes it's really cool. For example we did an episode from the kids' point of view and it's their first time on the Nemesis and seeing these giant robots running all over the place, and we decided to go for that fog of war effect—everything slows down and becomes reverbed, kind of *Private Ryan*-ish, with lots of running behind them and then, *whoosh!* It all snaps back in. I love those moments and we try to do at least one per episode and that's really rewarding for me because it's the part where you get to say "Wow, this is the end!" You're telling the story and seeing it all together with music and you're like "Wow, that really enhances the story" or "You know what? Let's take this back, we can make this a bigger moment than we ever planned." And from there it goes to network and I can flush it and carry on.

How do you manage to have someone like Christophe? How do you manage to have shot lighting instead of a fixed light source and still make it work?

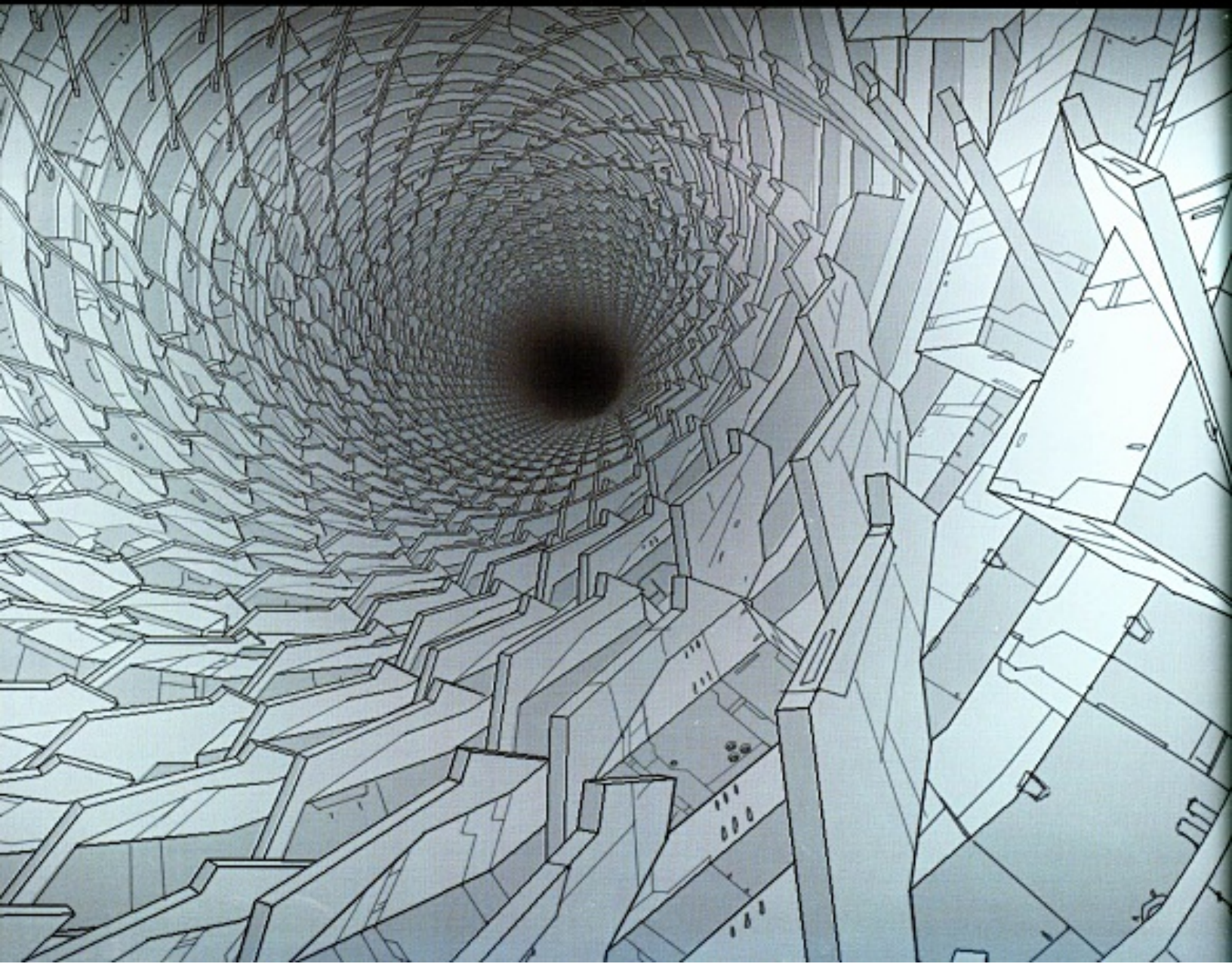
It's a mixture of both and a lot of this actually falls on Polygon's plate. I'll say "I want this" but they may actually find a way where they look at the storyboards and the color shots and say "Hey, we can use fixed lighting here," and for that shot they light it differently. He'll go through the storyboard and he'll pick key shots and then I'll sit down with him and we'll go through those and go "Ok, this is really important, this is important, this is an explosion effect—they've done this a hundred times, they know what to do." So we kind of pick our battles. We pick and choose what shots in each episode are going to set the tone of the episode. I like how every episode doesn't feel the same. We did one where it was "You know, let's get a little Spaghetti Western with this, let's de-saturate it, hit it with a lot of browns, go a little Sergio Leone with this episode," they're in the desert and it may be subtle and you may not notice in the episode itself but if you put it next to the snow episode you'll all of a sudden notice "Wow, they really made everything orange in this vs everything blue in this."

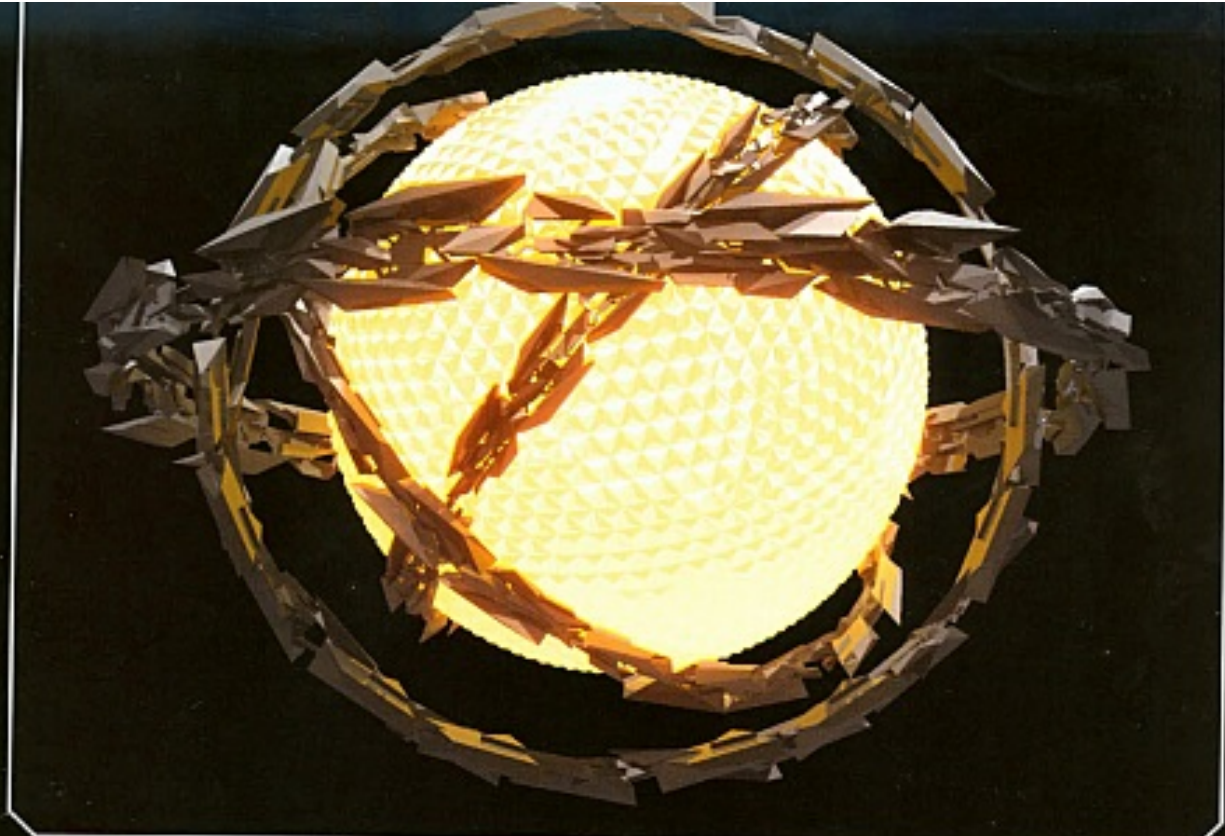
I really like the scope of things and being able to—much like *Star Wars*—you know: they're on Hoth, they're on Dagobah—being able to have distinct looks and even though a lot of our show takes place in deserts, the deserts themselves have very distinct looks, so working with Christophe in that, that's a big part—setting that tone, setting that look. Then from those key

shots we set up this lighting, so for a particular close-up we might have a specific kind of rim light but once you get into that, Polygon will even take that to another extreme. It's like "Hey, really cool, that monitor is giving off a kind of a blue underlight." We may see that and say "Let's make it look kind of ghoulish, let's bring it back" and other times we'll be kind of "Remember when we did that? We said it was ghoulish? Let's do that on this character here." So it's give and take but to me the lighting is an actor and it's just as important as the acting and your shots can get really boring if it's always the same character in the same lighting, but it looks very theatrical if you put in a little underlighting on someone or a light above. It may take a little longer in render time but if it's a major shot to tell different story then I think that's pretty important and that's something we wanted to fight for from the very beginning, to make this show a little different, at least visually, from other CG shows.

And with seven Emmys for the show for visual art it seems your peers agree with you. How does that feel?

I try not to think about it. Again I just feel like I really get to do something I love, something I'm passionate about. Not to sound sappy or give some kind of awards speech, but these truly are friends that we're working with, some for a long time. Some are new faces, but getting to work with your friends and going "Hey, we've got this really cool thing—*Transformers*—that we can all work on together," that's pretty





VECTOR SIGMA DESIGN AND FX

special. To me it is the same feeling as getting Del Taco and playing D&D with a bunch of friends except we're making a TV show for something we love. I like that feeling.

That's not to say there aren't days where we're rolling our eyes and saying "Oh my God," but getting to make stuff with your friends and there's that one shot and you're like "Ooh," that just makes it worth it for me and all I can think is "I can't wait until I get to the sound audio for that scene, or what's that going to look like when Polygon takes it and their guys are exactly the same." They stop playing D&D and go "Woah!", they take that shot and they take it one step further—it's that love for it and the creative process. You know, as a kid, having a friend over, staying up all night drawing your favorite characters and comic-books—it's that fun and now I get paid for it.

With Polygon as well, we came on with them as a creative partner. Working with other CG places it tends to always be a work-for-hire kind of thing. It goes out overseas and comes back, you make notes. There are certain things we do with shots, sometimes we pull back, leave a little room for interpretation—we wanted Polygon to be a creative partner, as in, it's not work-for-hire and their job is to get notes saying "Do this over." I never liked that and I don't think it works. No one likes to get notes saying they have to redo their work but as a creative partner, if they've got ideas we have this open door policy—they'll send me an email. Miyashi, my equivalent over there, there's a huge language barrier but we both have directors' hands, we talk on Skype, we have translators. We get that opportunity and it is fun and they get to challenge us on things too if something isn't making sense to them. It's definitely a different culture and there's different ways to see comedy or action, stuff like that, so it's nice to see someone else's interpretation of how they read a joke or a particular emotional moment—how it worked for them and being able to get some feedback from them. "Hey we want to try this, if that's cool." It's nice to have that open dialogue where we can get that creative voice from everyone and I think that pays off in the show too, in the look, the feel of the characters, the love for the animation process, not to mention the respect you show your own work and the franchise you're working on. There's definitely respect for Transformers over at Polygon and I think it shows.

Can you remember one or two specific shots that you got back and just knocked your socks off?

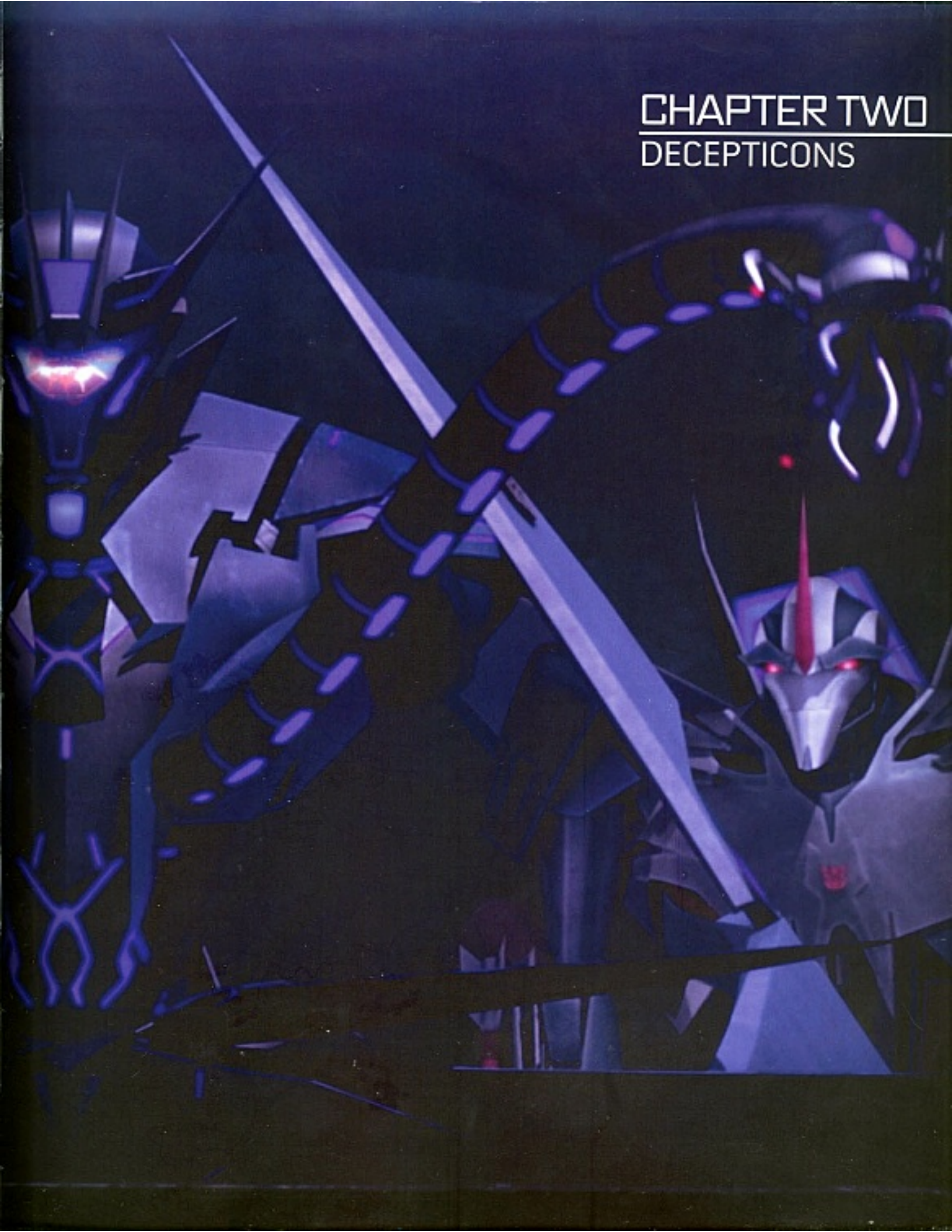
Well, I directed the very first two episodes to set the tone of what we were going for and when I saw a zombie Cliffjumper come back I was just like "This is awesome! This is the show I've always wanted to do!" There's a few horror film clichés that were hidden in there, you know, he hits a light and it flickers—but you can see his energon parts glowing in the dark—that had me jumping up and down. Those first two episodes, every shot was "Wow." Jeff and I had worked with Polygon before—and on other CG shows before—and it's a show you don't make excuses for. There's always shows where you go "This is kind of cool but I would have done it like this." But to me this wasn't that kind of show. This was something where you don't have to say anything, you're just proud of it and being able to do that with those first two shows.

Now when I go back and watch those two shows it's pretty amazing how far we've come—how much more polished it looks now—just the texture, the lighting, it's neat to see how far it's come. In every episode you want to try something different. We did this episode with the scraplets and we were wondering how we were going to do these millions of scraplets running around. So you get these shots where they're moving in bulk and you throw that cinematic lighting in there where you actually see them fall off of the lighting as it goes off in the distance. It's real. It's not a like a fake matte painting—that's amazing—there's always that wow moment but we also wonder "Did we paint ourselves into a corner? How are we getting out of this? How are we going to do next season?" Luckily Duane breaks some stuff to fix that. I think every episode has a wow moment—at least one shot that makes you go "Oh my gosh." but in general the show just looks great from the get out, so just seeing it all together like that is a wow moment for me.



CHAPTER TWO

DECEPTICONS





MEGATRON



MEGATRON
TRANSFORMERS: THE MOVIE



DARK SABER



SENTINEL PRIME'S ARM



MEGATRON
SWORD

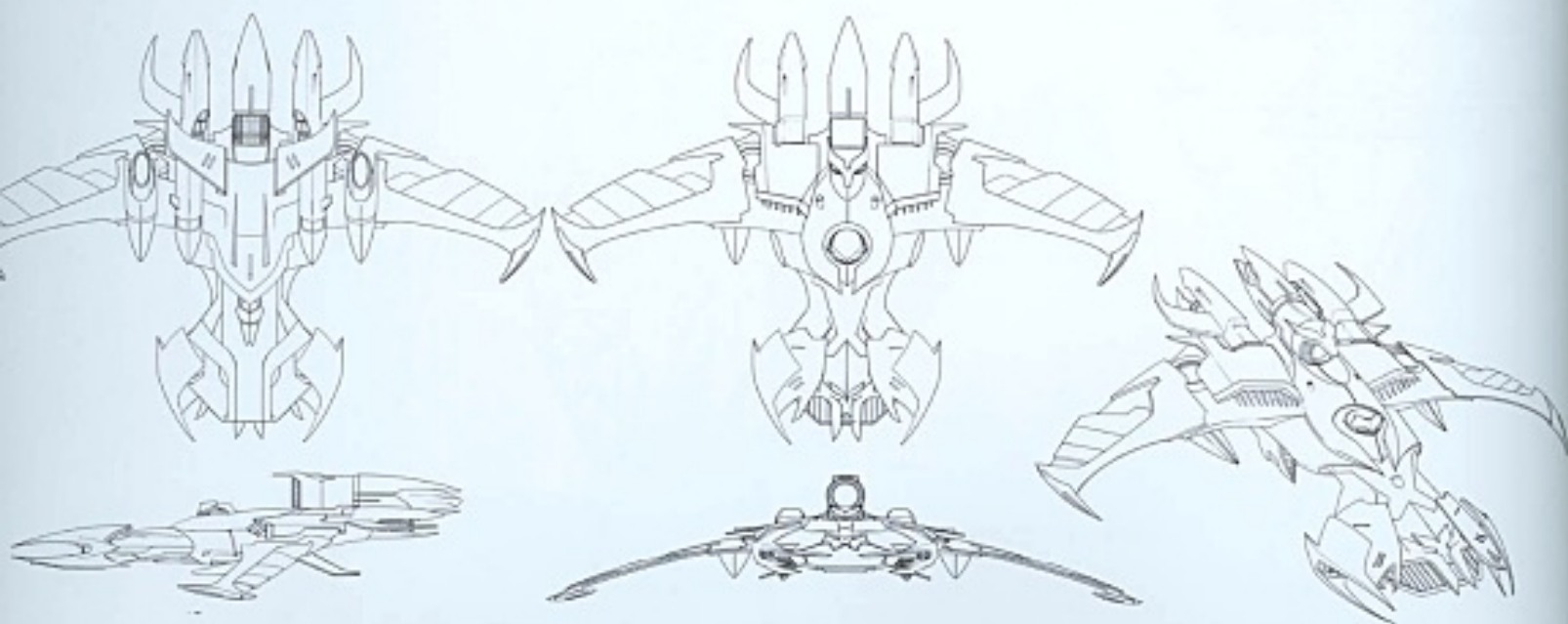


"Megatron went through a lot of changes. Originally, we wanted to borrow designs from the movie version. We saw him as a tortured soul, twisted metal into his body and coming out elsewhere. He didn't have the normal anatomical breaks that our guys have, which is a guy in armor. At some point we said let's forget the movie stuff and just do our own thing."

Then I went back to looking at Megatron from G1. We made him a bit rounder and spikier than the G1 version, but borrowed heavily from G1. If you look at the legs, the way the shins curve in and out and the back of the leg, the cannon on the arm, the bucket head, even things like the position of the emblem on his chest and little cuts on his ribcage, all those elements are still there." -Jose Lopez



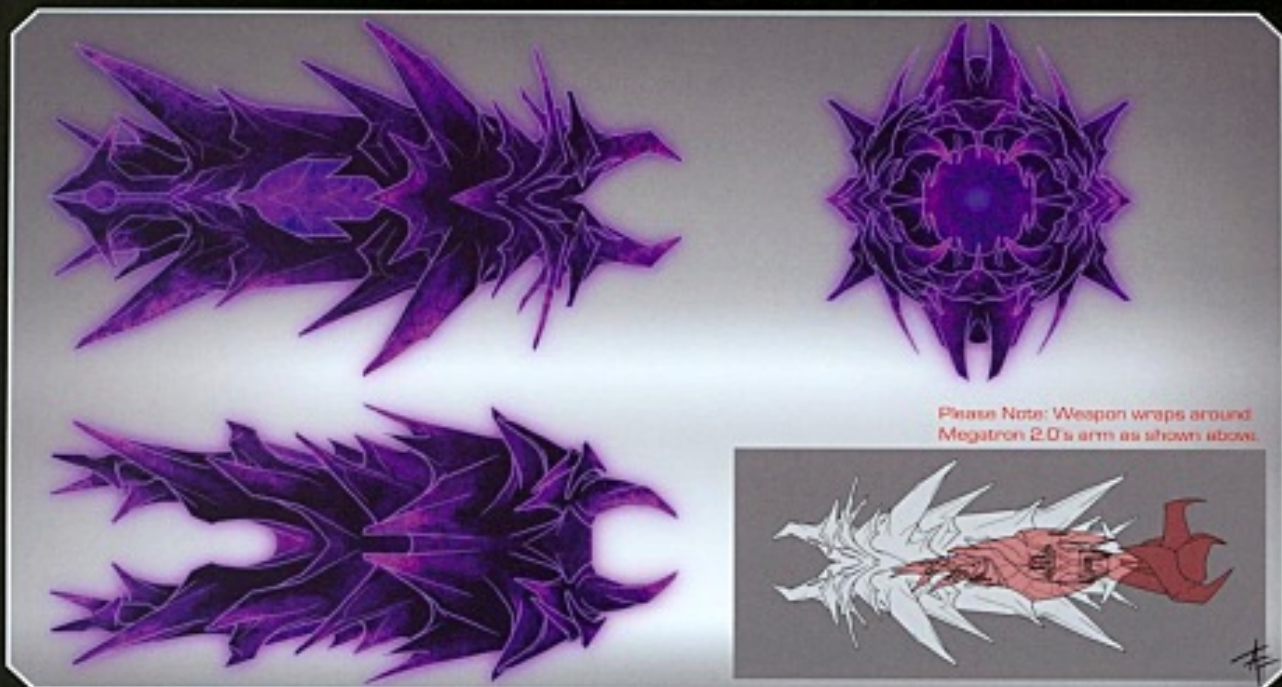
"From the conversation of the design from the movie, we thought he was too proud to have an earthbound vehicle, so he kept his jet mode from Cybertron. Because of that we were able to keep him a little more alien." -Jose Lopez



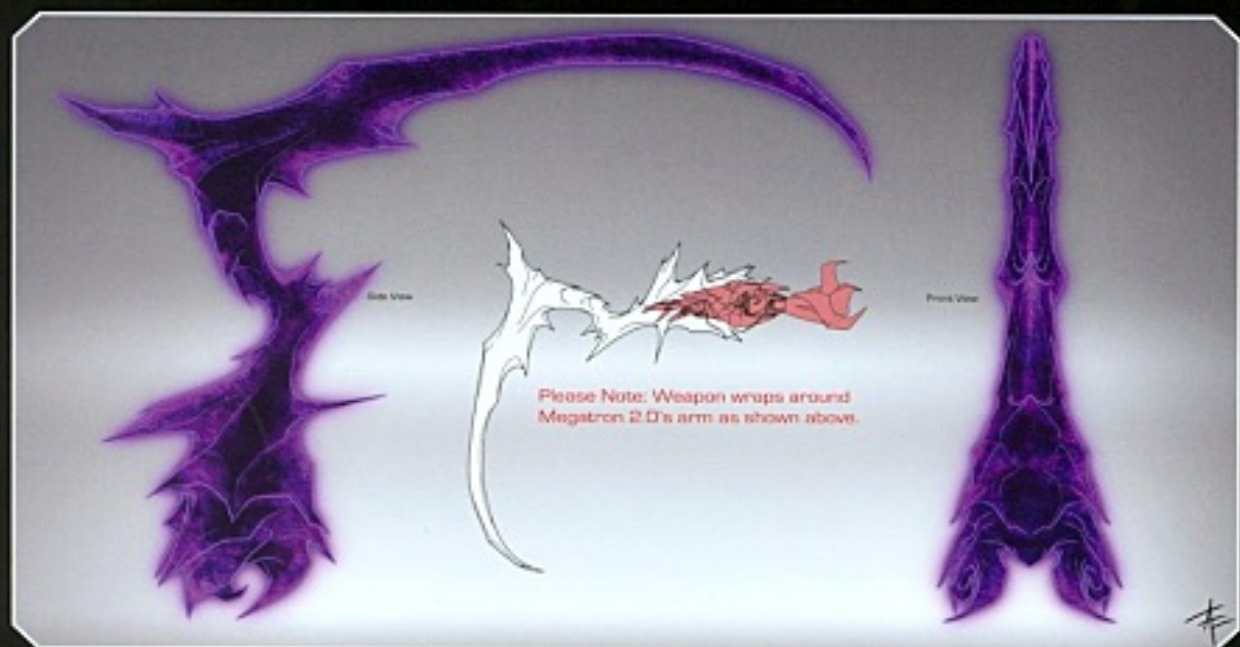
"We wanted to give him his facial scar, and make sure he was terrifying. He's taller than everyone else, so when you see him on the screen you feel like he can take down anyone." -Jose Lopez



MEGATRON 2.0



ENERGON BLASTER



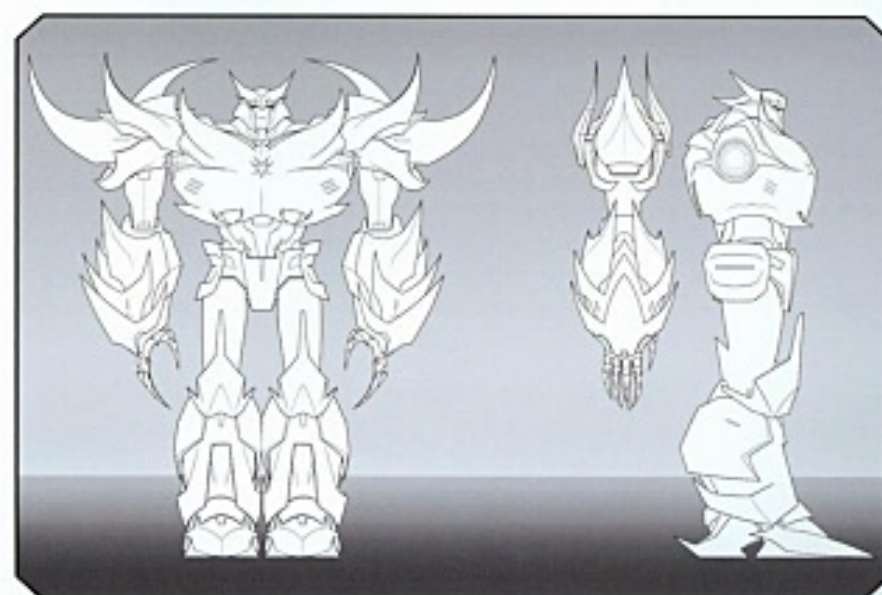
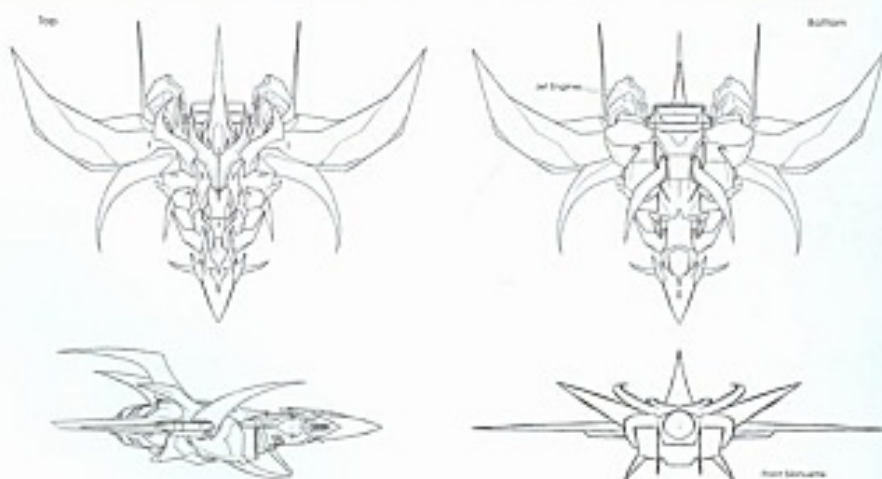
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ENERGON HAMMER

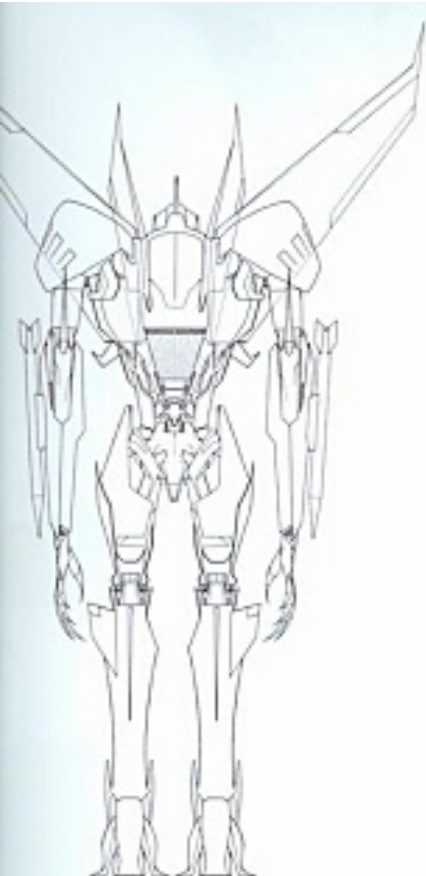


"Because he's still Megatron, but taken over by Unicron, we kept him Megatron but hinted at different elements that were more Unicron, like the horns, the spikes. Then color and texture, too, hint at the Unicron taint in him." -Jose Lopez



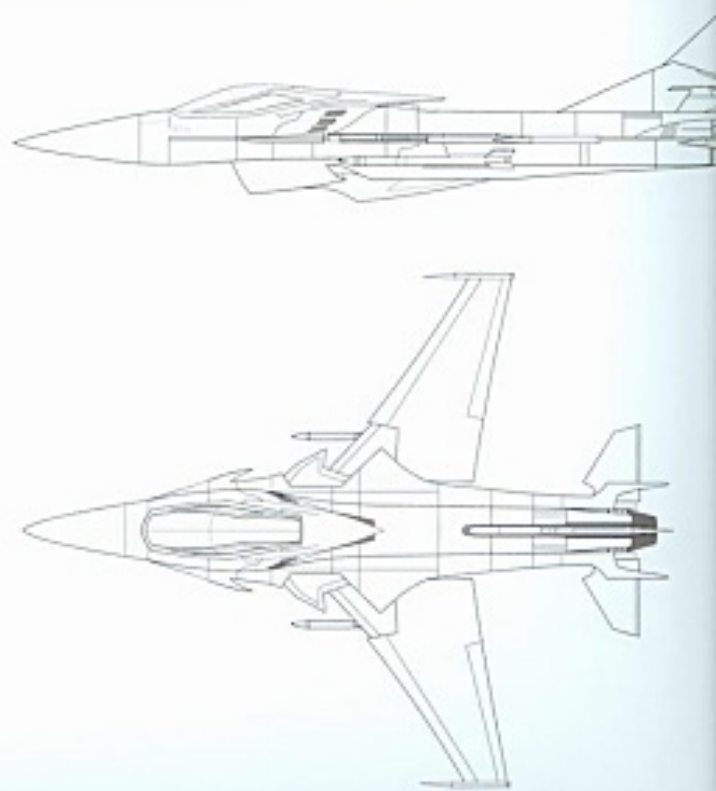
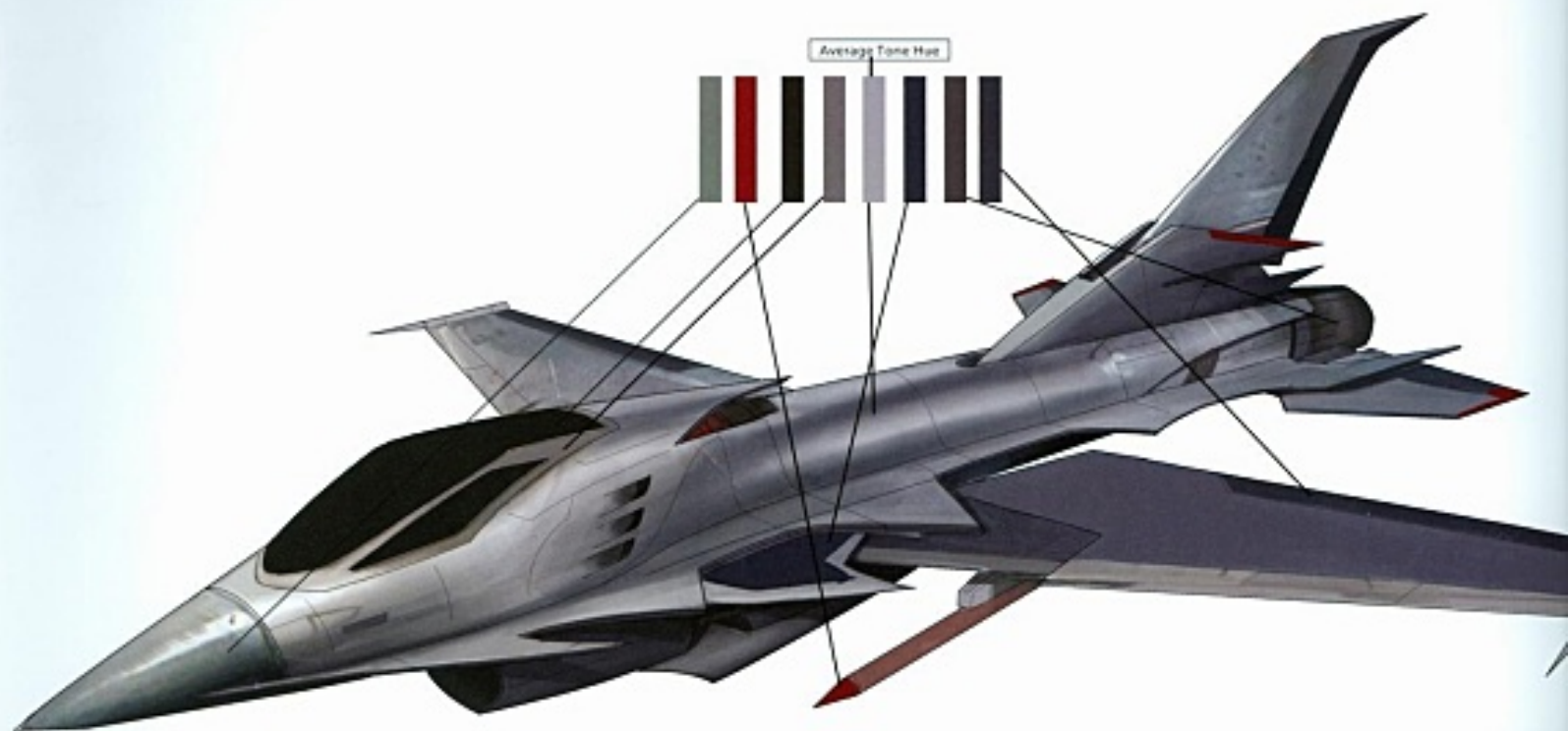
STARSCREAM



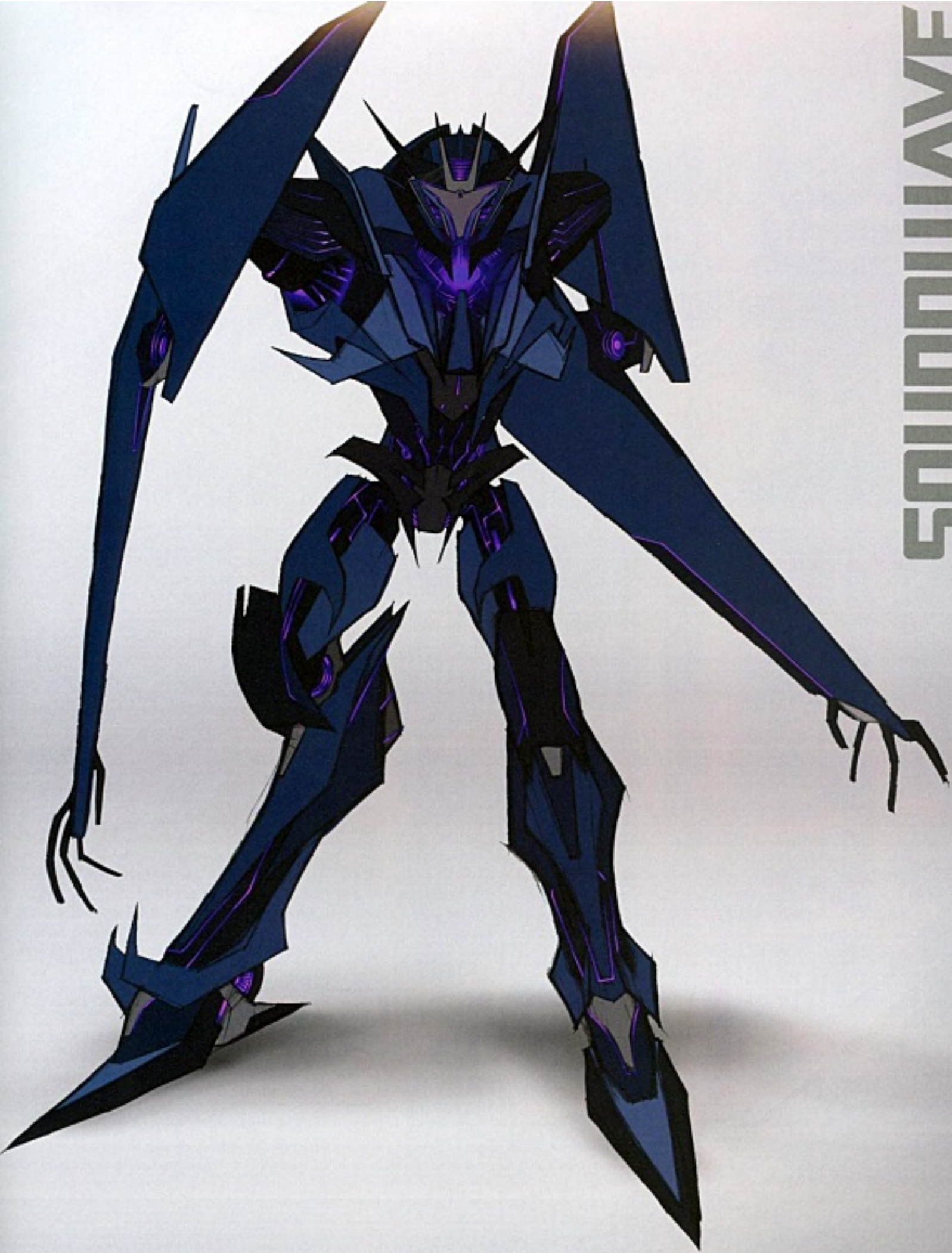


"Starscream was a lot of fun. He went through different incarnations in the elements. I did a design of him where he was very imposing and badass. Jeff [Kline] said 'he looks like he can take down Megatron. Starscream's not about the physical element, he's all about his cunning and intelligence.' We went back to the drawing board. When I did a design where I could draw a cobra right over his darkened silhouette, that sold Jeff on the design." -Jose Lopez



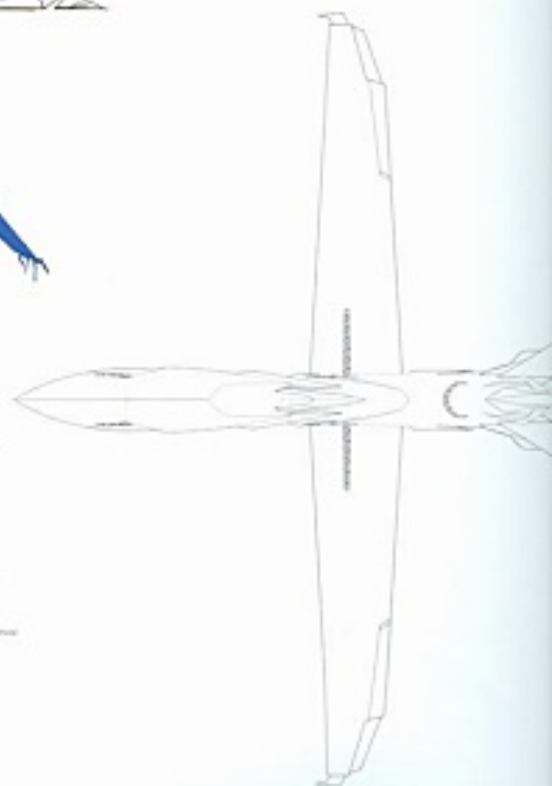
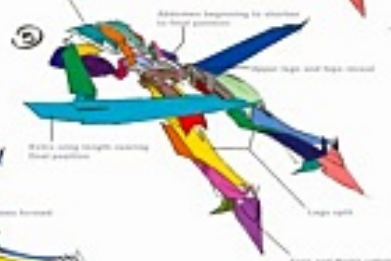
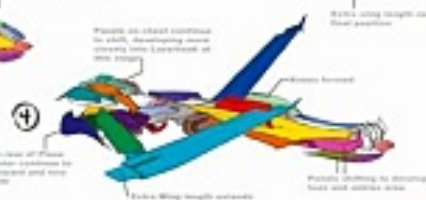
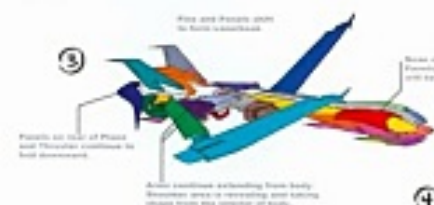
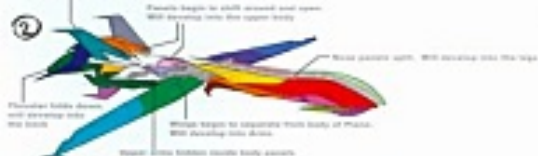
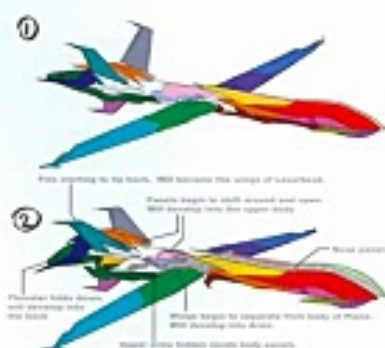
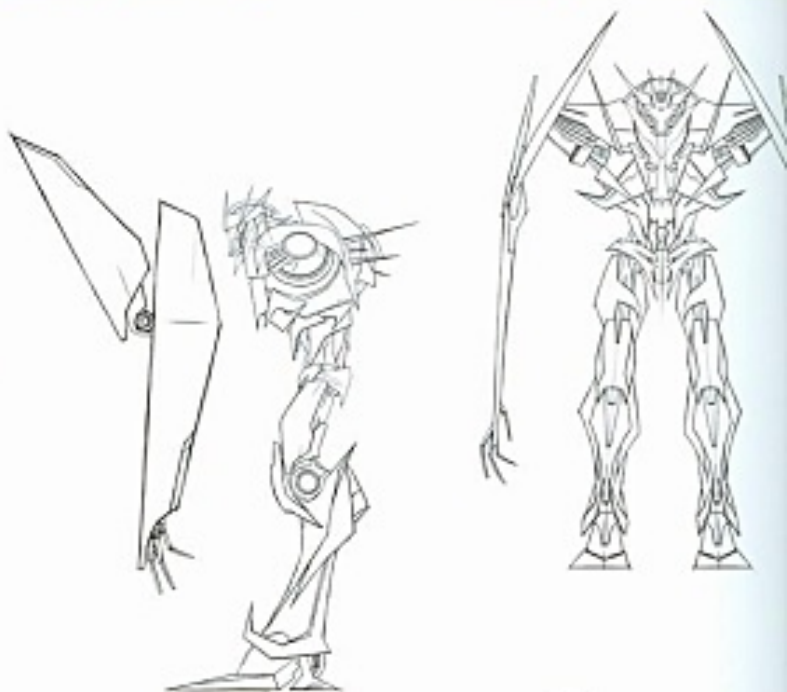
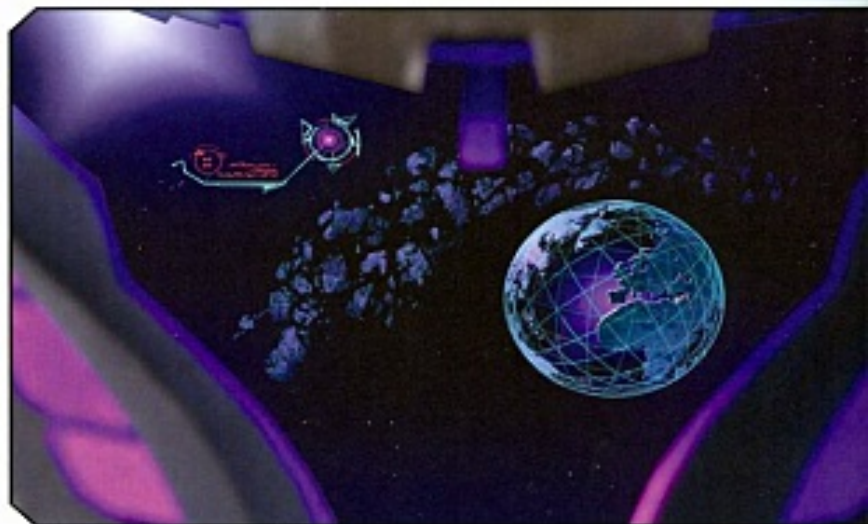
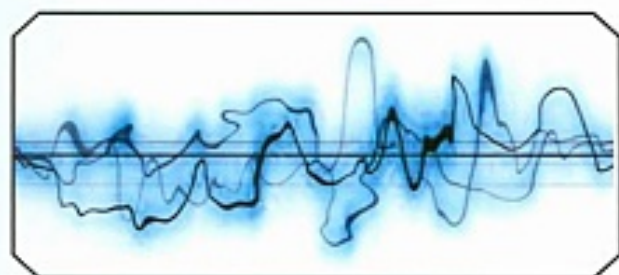


EARLY STARSCREAM SKETCH

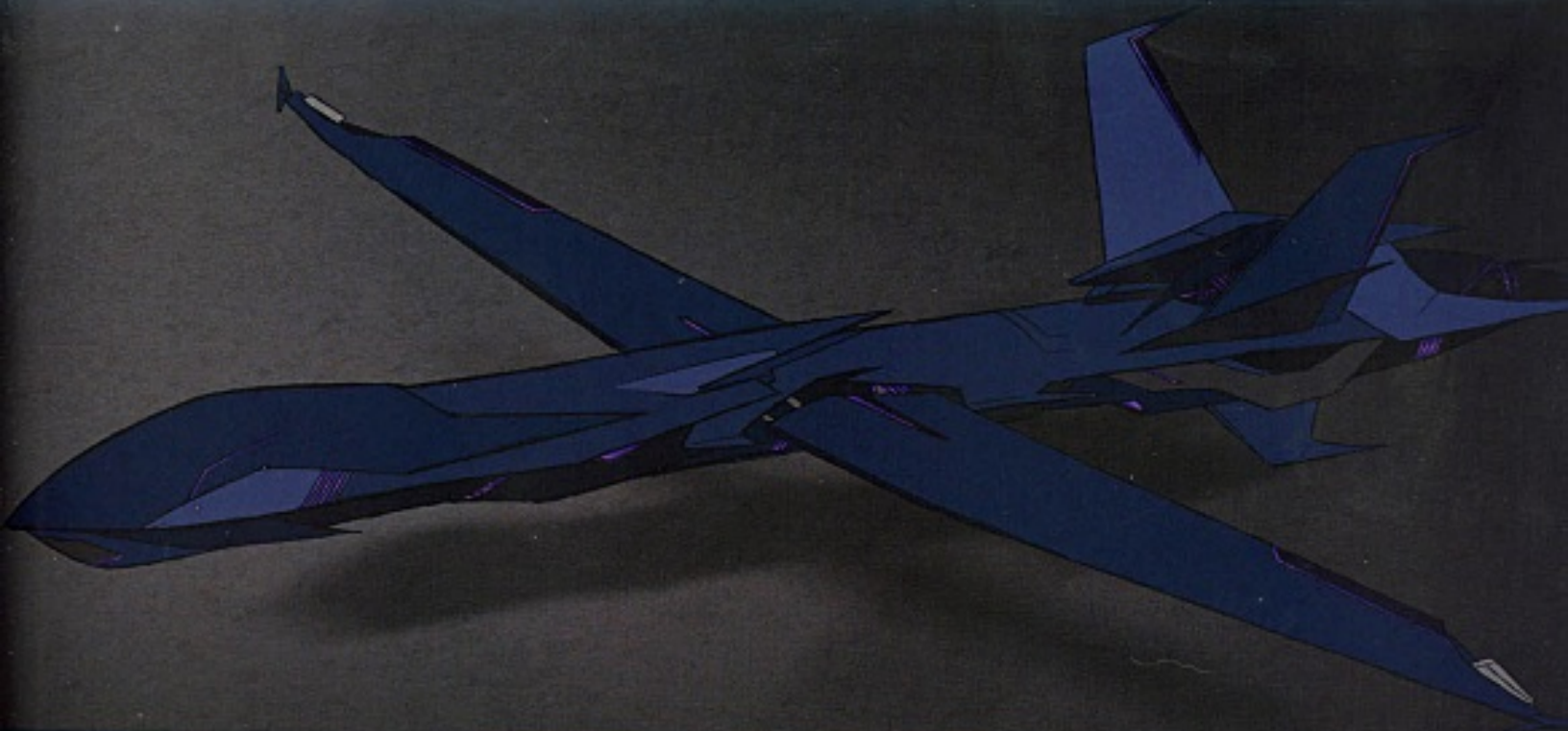


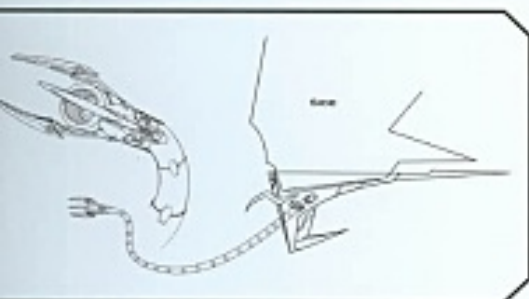
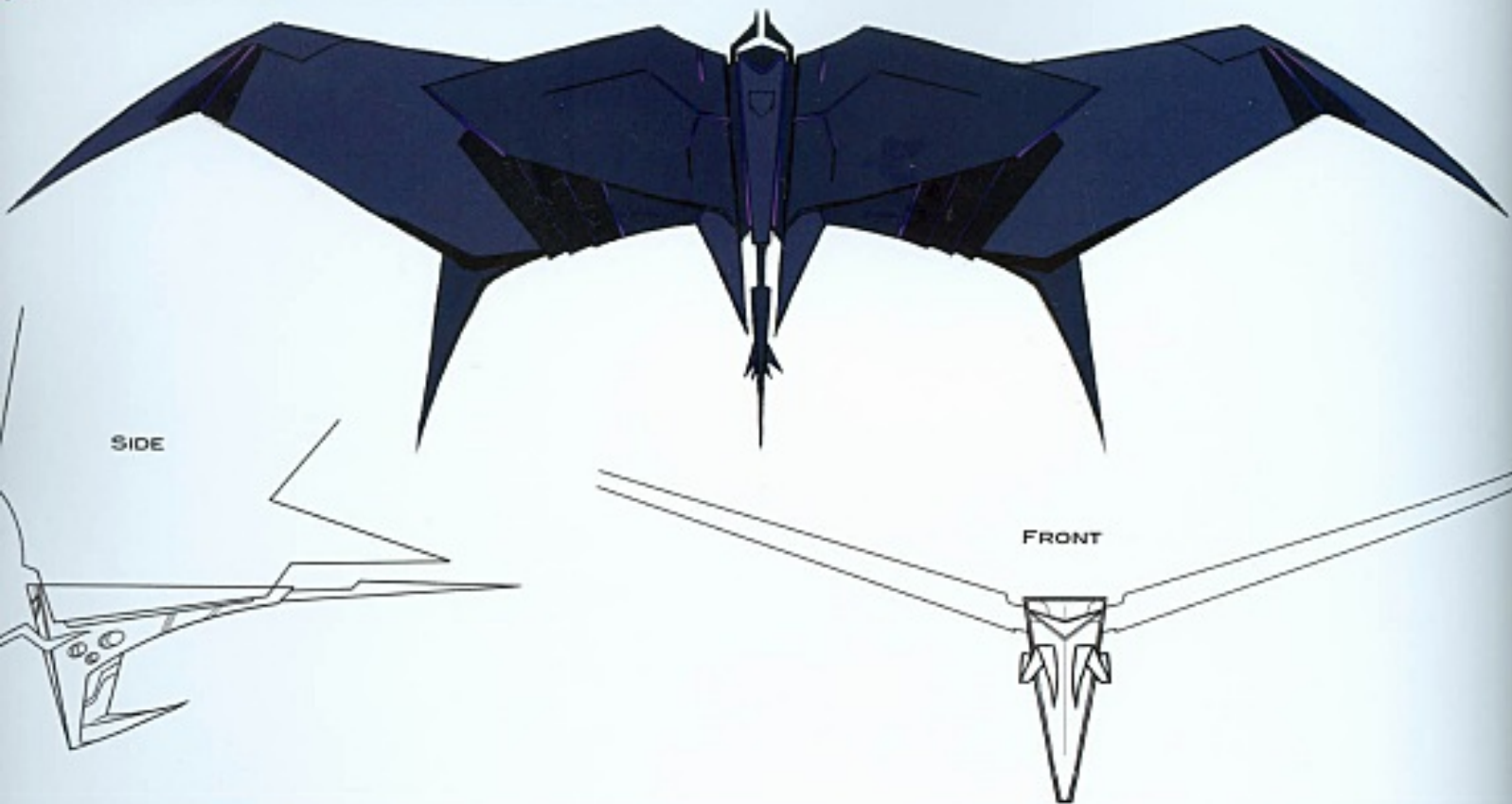
SAVING THE DAY

"We made Soundwave very alien in terms of design details. We wanted to keep him mostly Cybertronian looking. There are no humanoid vehicle parts even though he scanned one." -Jose Lopez

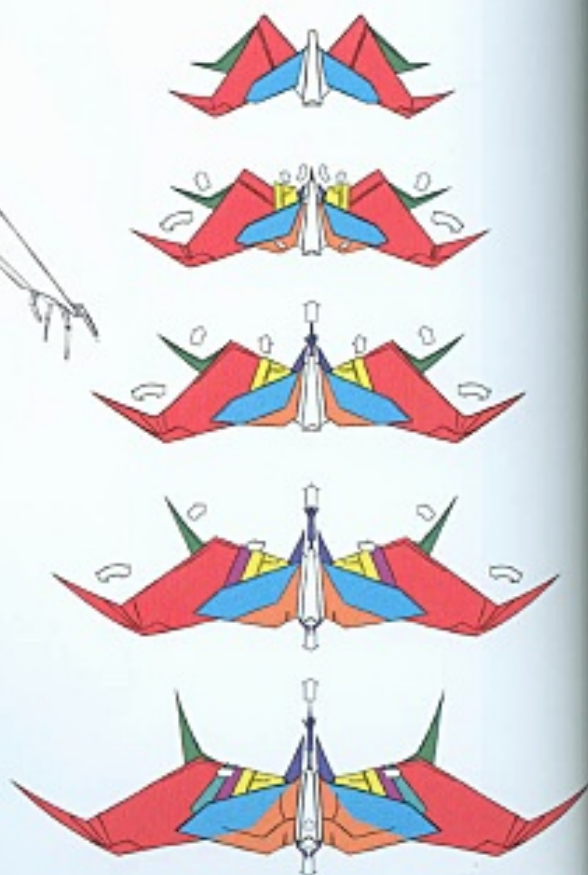


"He's the one that Hasbro had concern about, and said that we had to put something from the original version. There are elements around the head that were borrowed from G1 but that's about it." -Jose Lopez





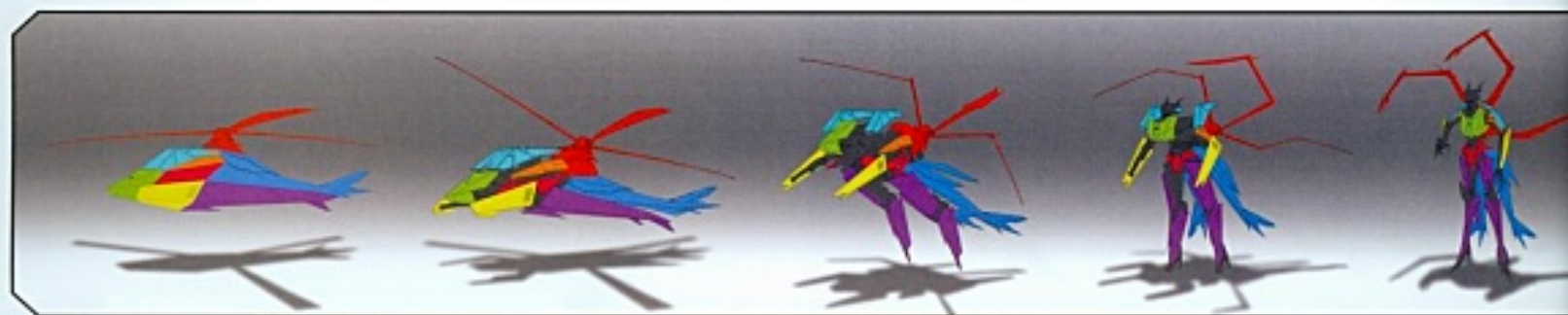
LASERBEAK

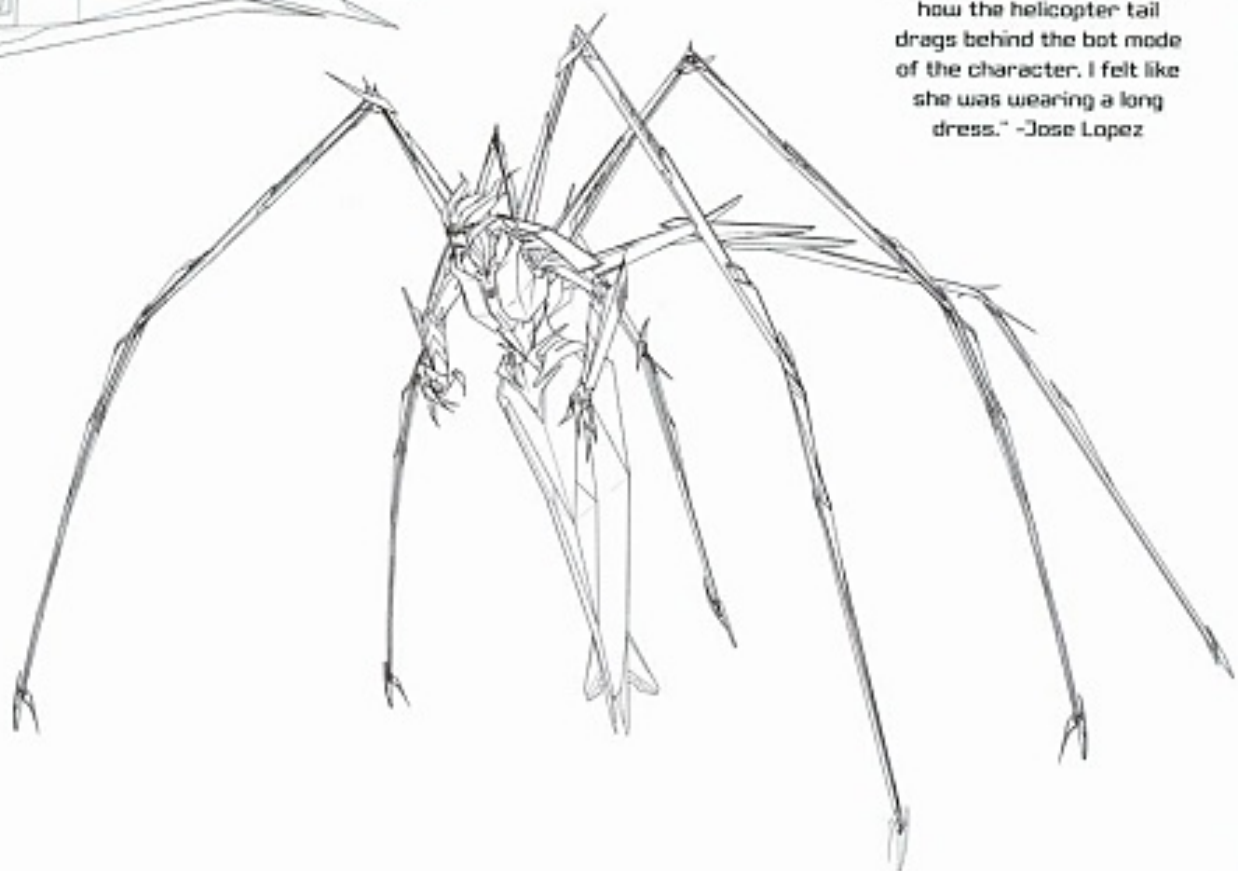
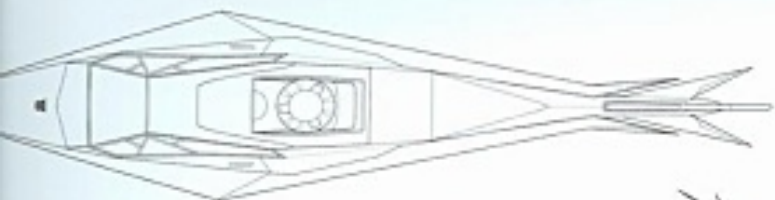


"One of the elements I wanted to keep was Laserbeak. He wasn't a cassette tape, but I wanted him to come out of Soundwave's body." -Jose Lopez

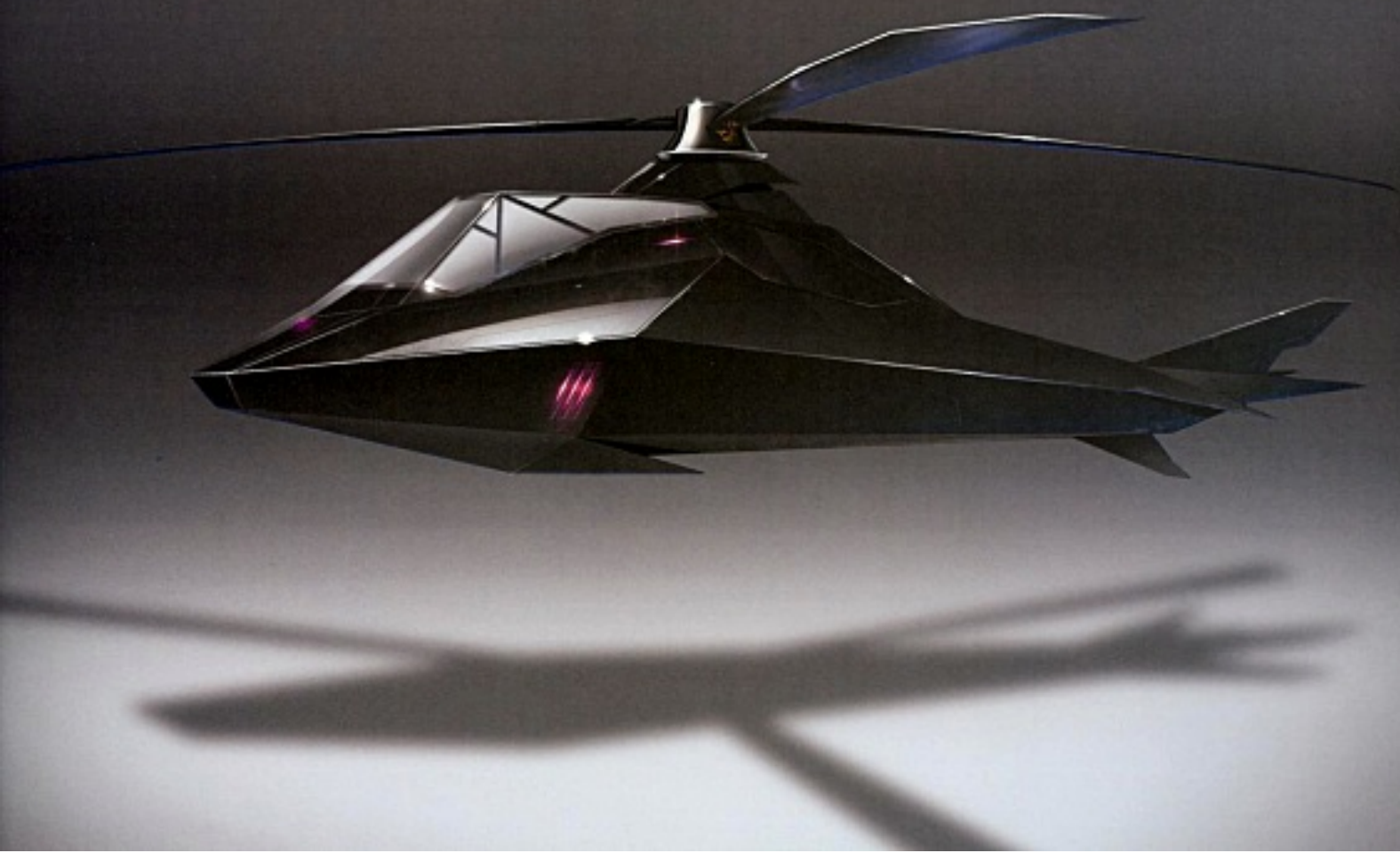


AIRACHNID





"I was inspired by Maleficent from *Sleeping Beauty*, her elegance. I love how the helicopter tail drags behind the bot mode of the character. I felt like she was wearing a long dress." -Jose Lopez

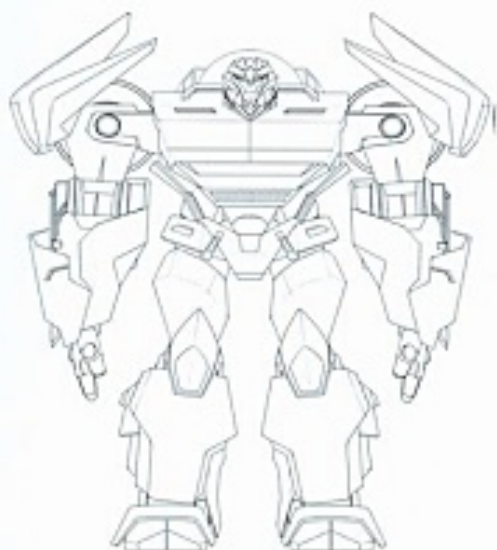




КНОККАУТ

BREAKDOWN

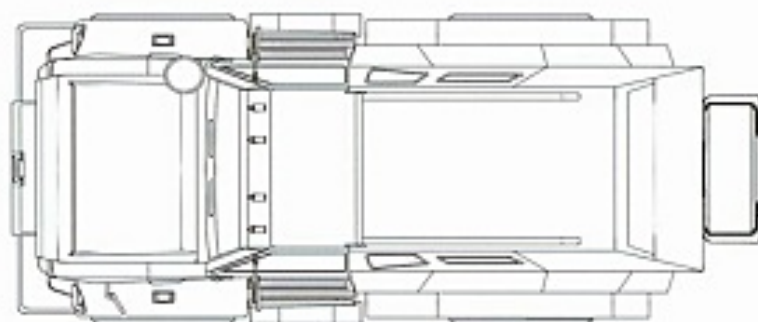
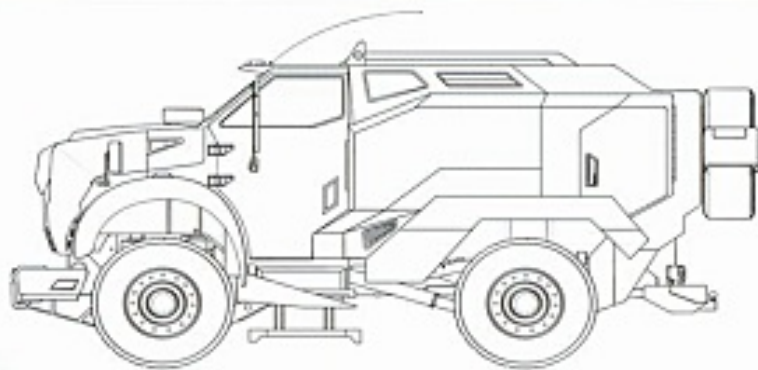




"To design the bot mode, I looked at some military vehicles I could use as a jumping off point to establish the design language for that character. For the silhouette I wanted something very large, bulky, kind of square." -Augusto Barranco



BREAKDOWN DESTROYED





DREAOWING



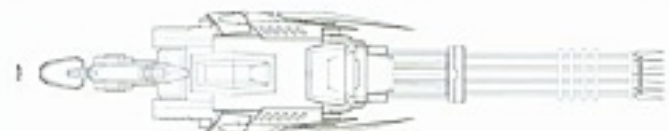
SKYDIVE



"With Skyquake, we wanted to push the military elements. The head design felt very samurai for that reason. The color scheme draws from that too. At one point we gave him medals but were asked to take them out. With Dreadwing, the challenge was to keep the Skyquake design but make him feel different with textures and colors. We wanted to keep the military feel, so we went with the blue and gold." -Jose Lopez



SKYQUAKE'S VULCAN CANNON



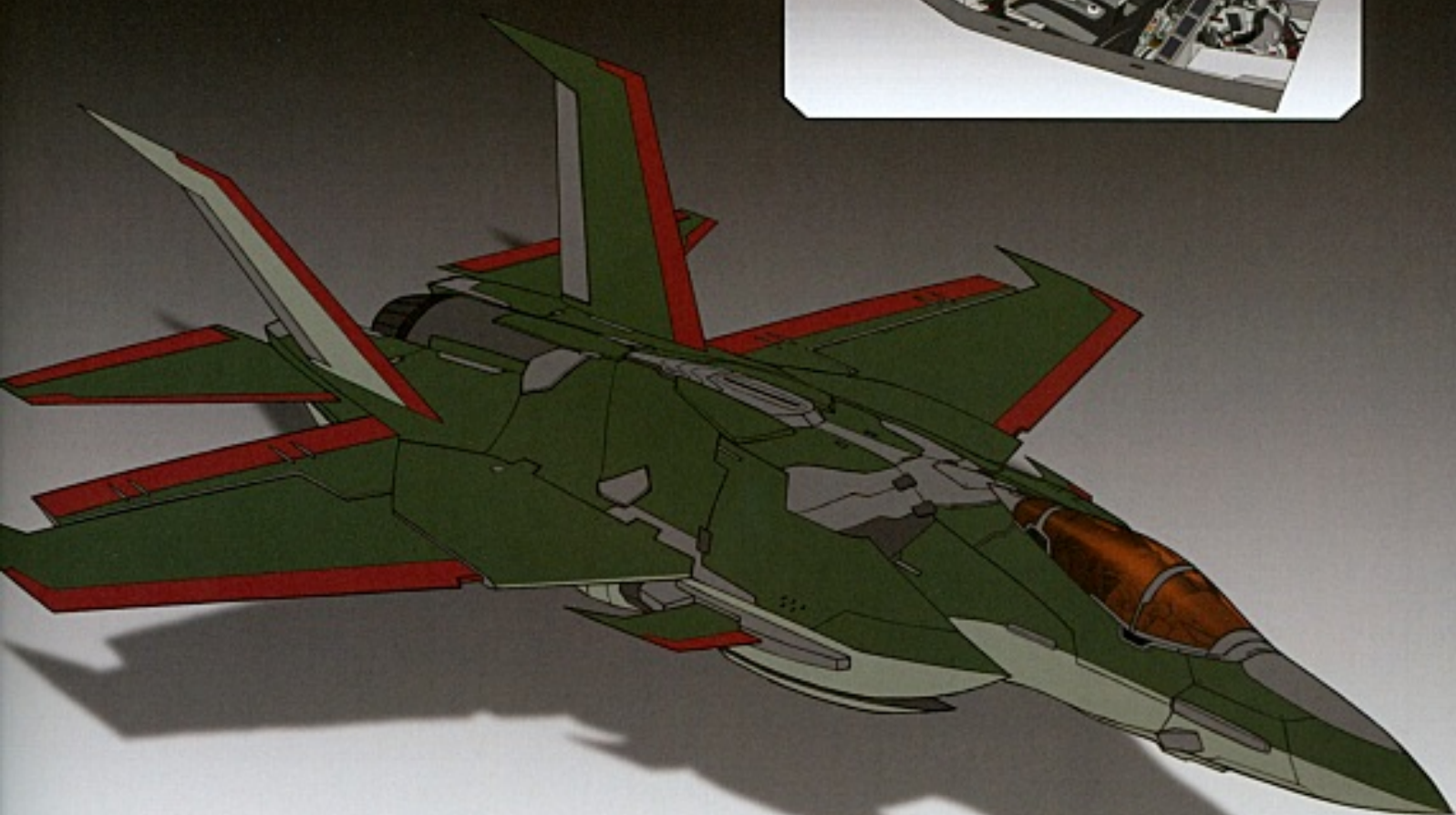
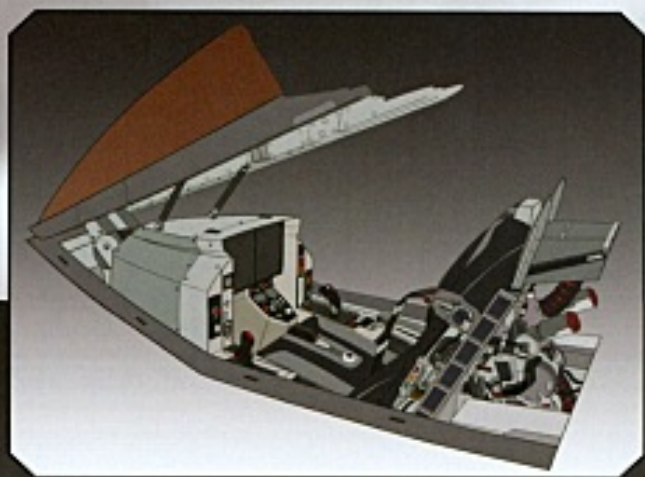
DREADWING'S RIFLE



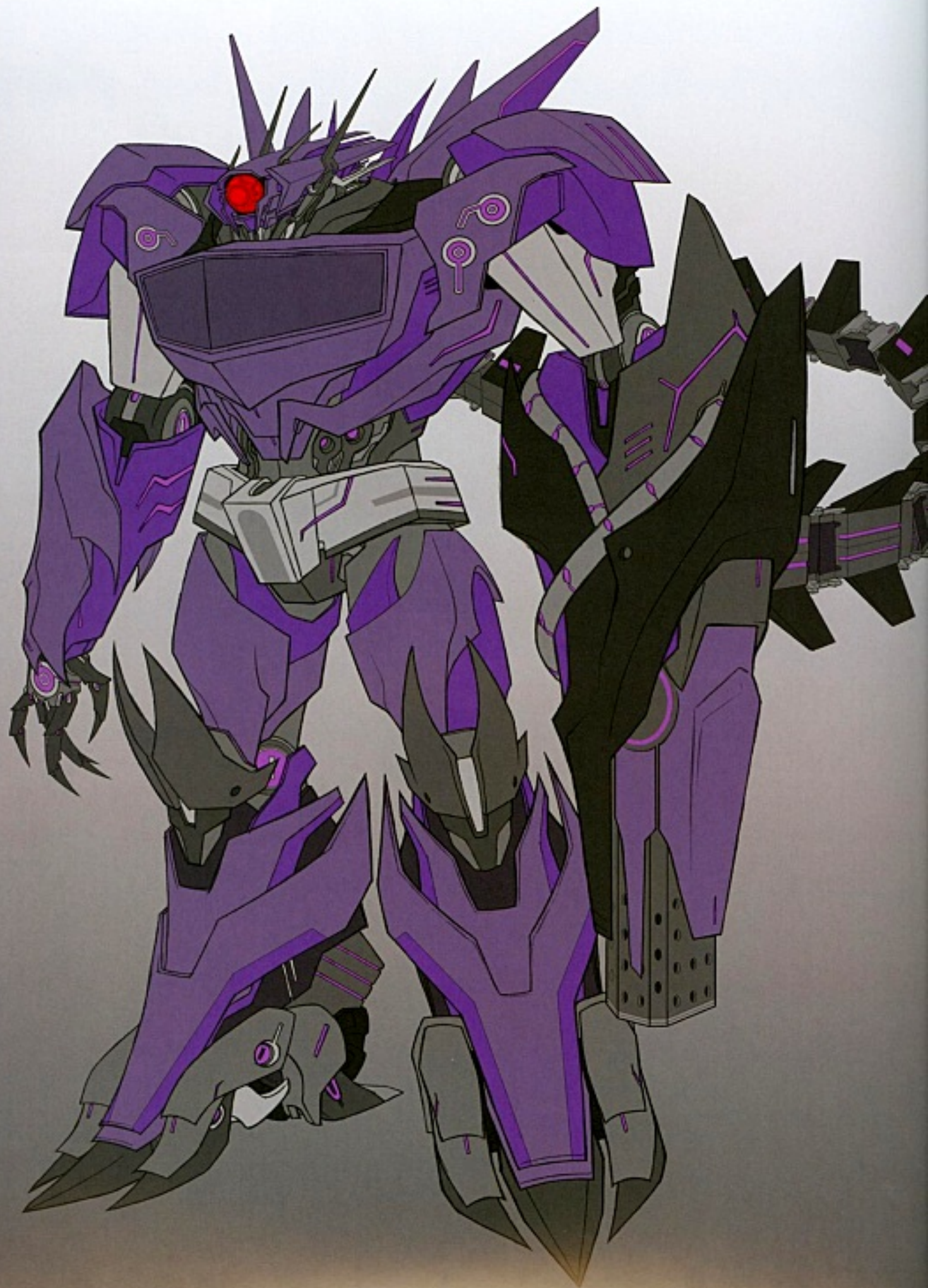
DREADWING'S SWORD

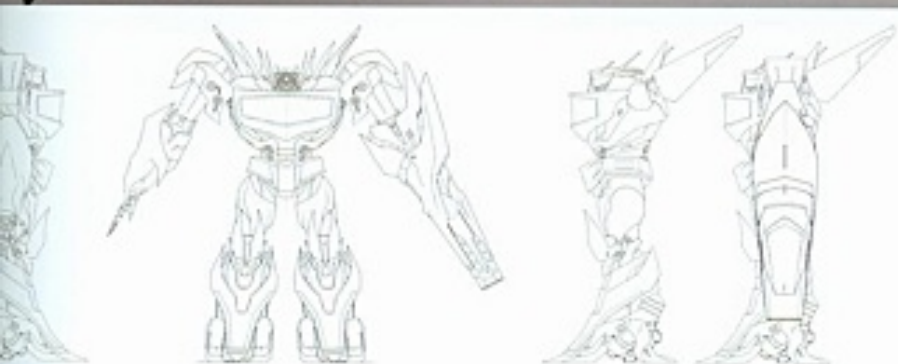
DREADWING'S CANNON





SHOCKWAVE





"I really loved his original G1 design. We focused on things you really wouldn't think about. We spent a lot of time designing the chain that connects his gun to his back. The chain became the treads for one area on the tank. The other set of treads we just hide in his back but you can see it in the design peeking through. We actually created his spine from that." -Jose Lopez



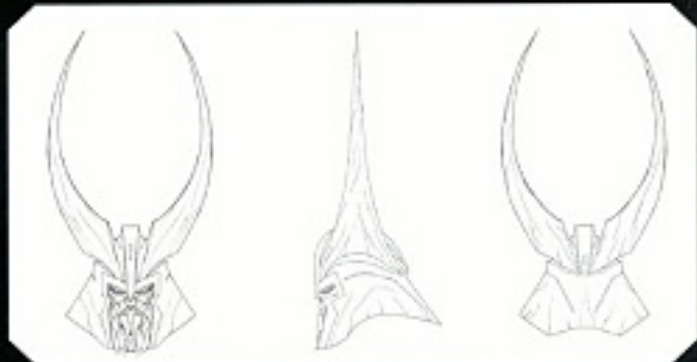


UNICRON

"With Unicron, the biggest challenge was implementing rock elements that worked with our robot design language. We took elements of the original, like the shapes on his shoulders and the creepy bony wings he has, and pushed them up further. We wanted to keep the original color scheme, so we made sure the mountains they came out of had the same tones." -Jose Lopez



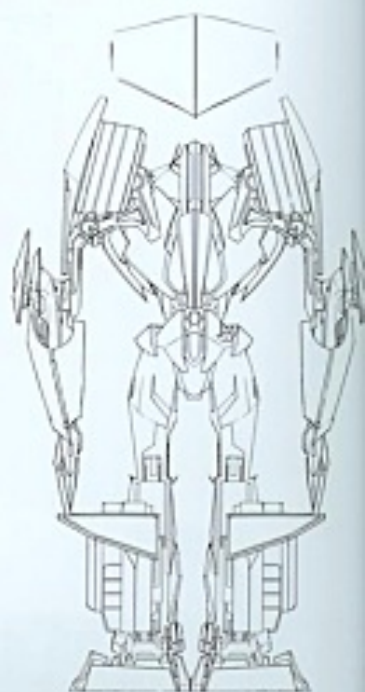
DARK ENERCON (UNICRON'S LIFEBLOOD)



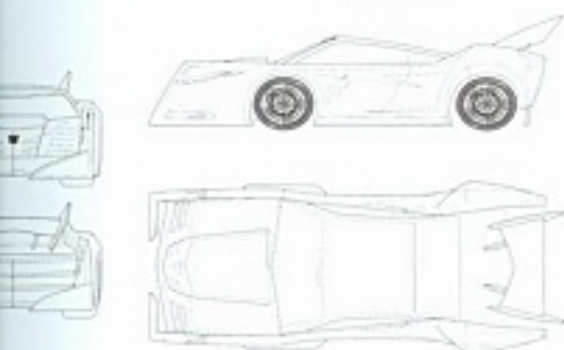


"All the zombie stuff we did as a collaboration with Polygon. I think I only did one or two designs, Walter did variations of the heads, and then we did one body and let them run with it." -Jose Lopez

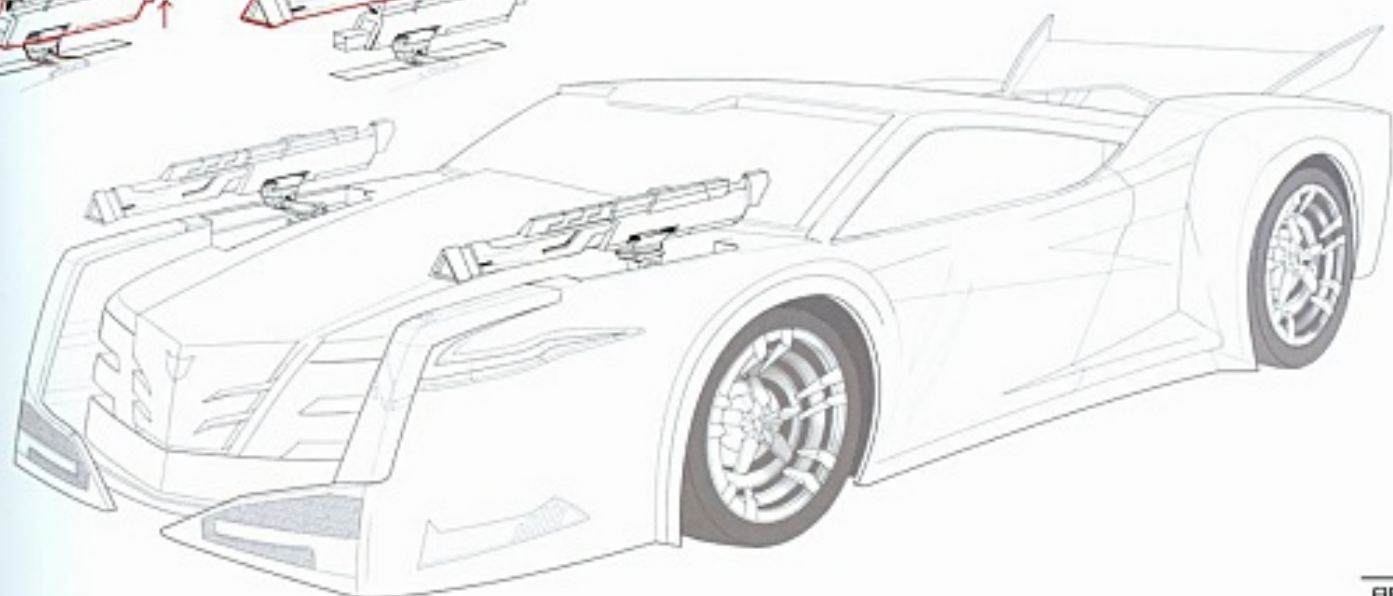
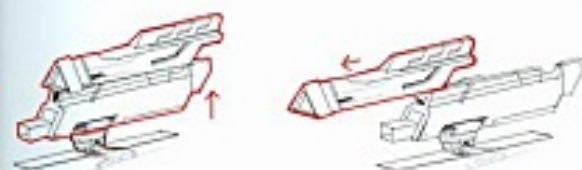
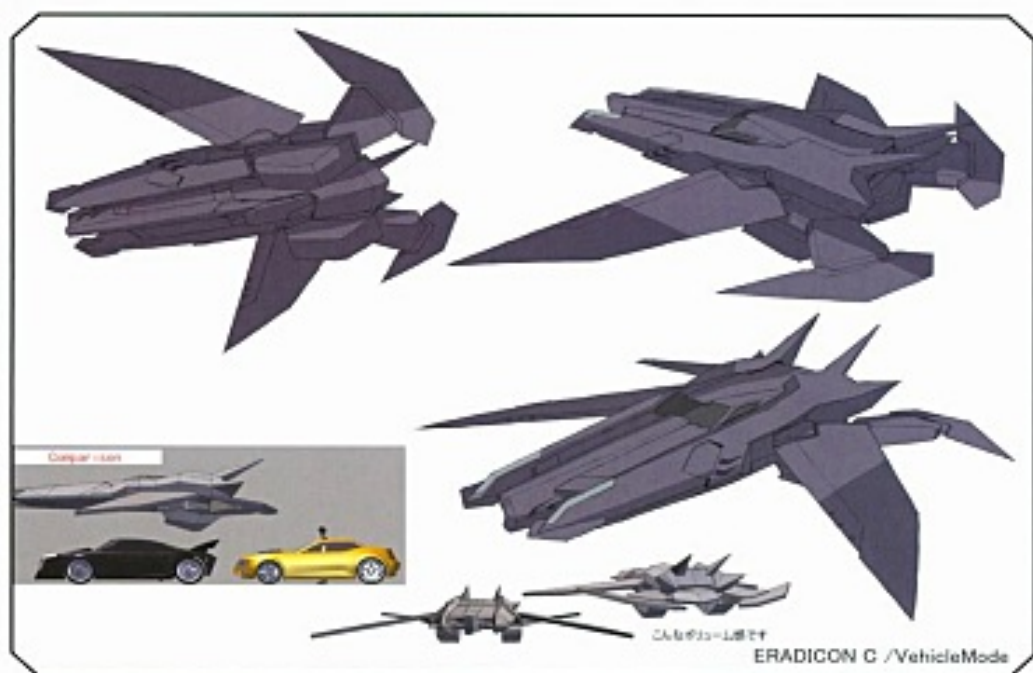
TERRORCONS



VEHICONS



that the Vehicons aren't really a single character. You can't get too crazy with guys like Optimus, or they look like Optimus. Non-characters help you polish the language of the series. We thought they shouldn't talk at one point so I didn't give them a mouth. I thought it'd be cool to give them kind of a mobile vibe to the vehicle mode." -Jose Lopez







"We wanted to push for alien, bizarre looking creatures, and some of the early sketches were crazy. Brand always tries to bring it back to make the foundation of the design something that a kid could recognize. Because they were part of the same class as Vehicons, in terms of there being armies of them, we put the same visors on the eyes to tie them together visually." -Jose Lopez





PREDACON FOSSILS



PREDACONS

The Predacons were a faction long extinct on Cybertron, but Shockwave managed to resurrect the species by cloning ancient fossils.





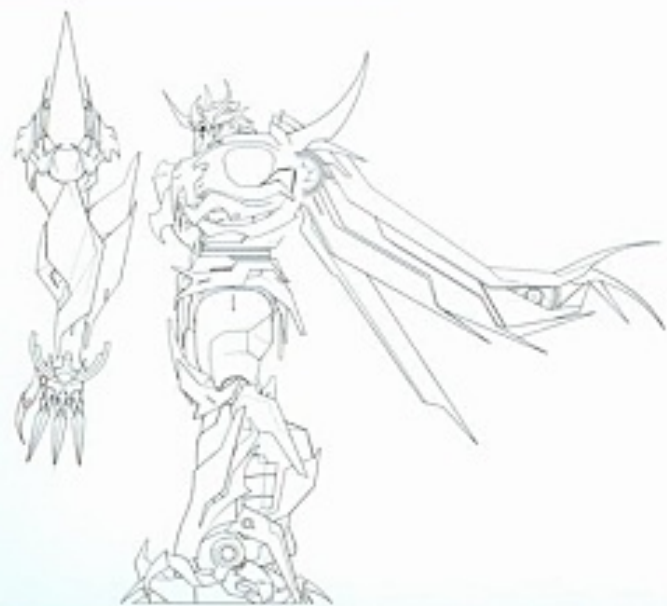
PREDAKING

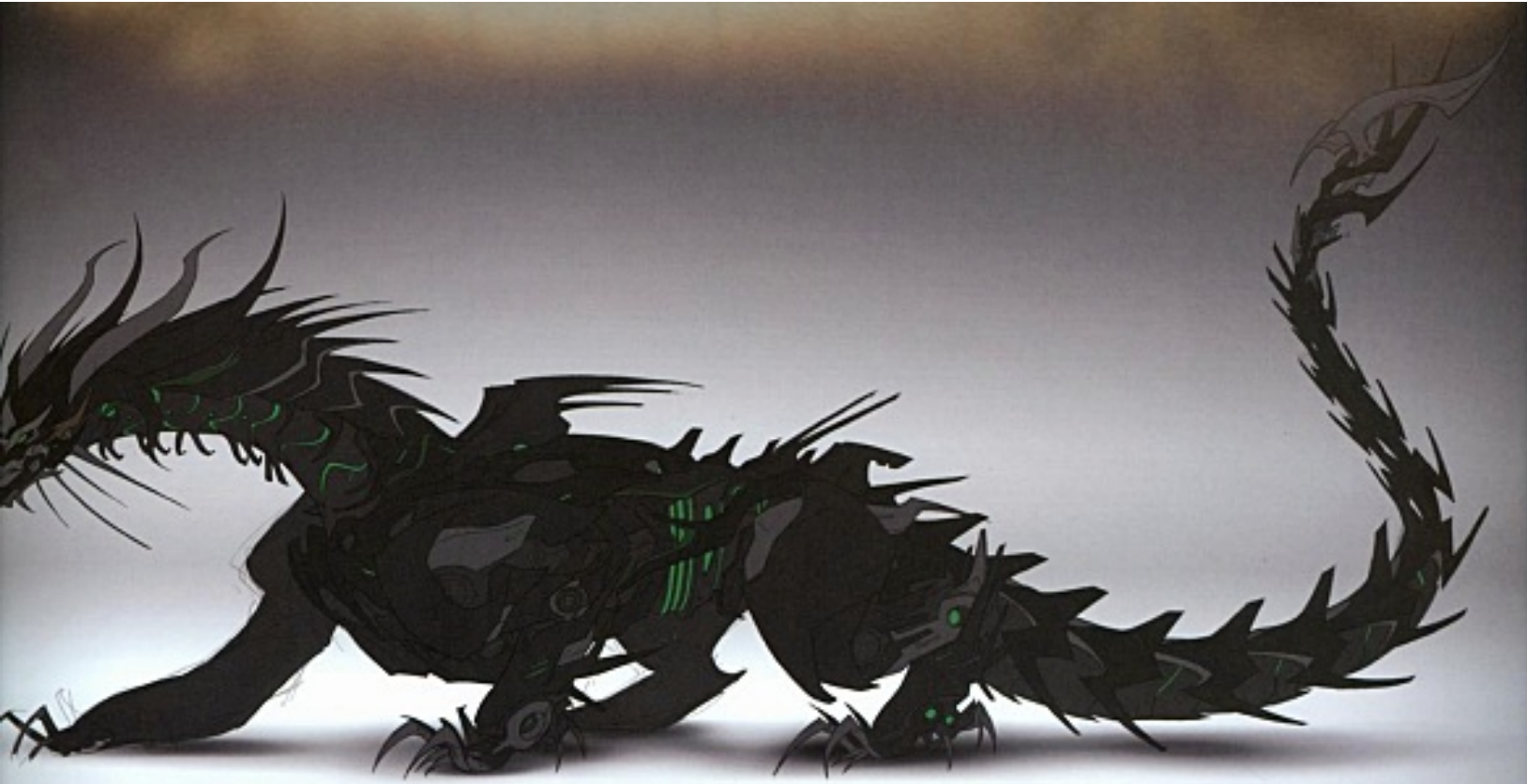


"I had done some early sketches for Megatron that were deemed too regal, too sophisticated. I really liked those designs, so when Predaking came in the picture I pulled some of those designs and implemented them in the design of Predaking." -Jose Lopez

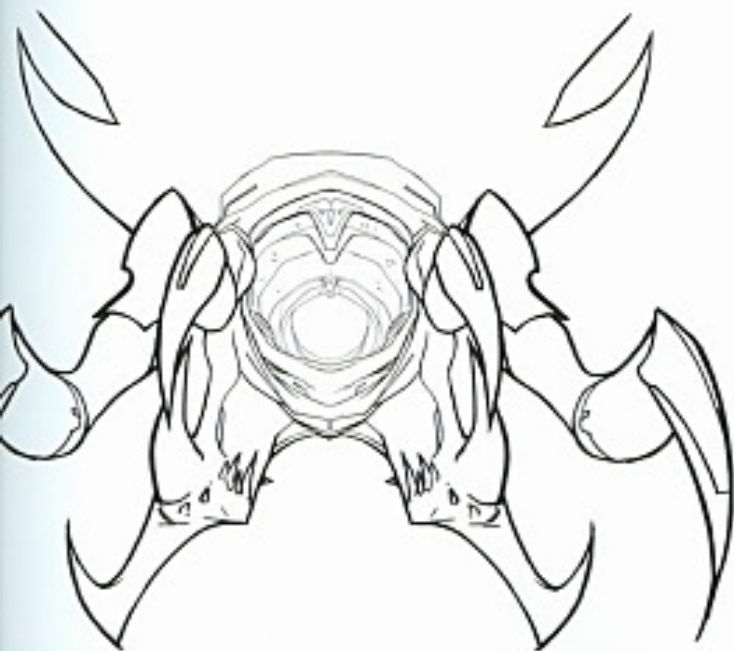


"Predaking was a lot of work, but also a lot of fun. I designed Optimus 2.0 and Predaking simultaneously and I went nuts with the detail. A lot of people freaked out, on the toy side and at Polygon. I made a lot of people's lives more difficult." -Jose Lopez





"Hasbro wanted him to breath fire. I figured he'd have to open his mouth really wide. I was inspired by Predator for an alien way to open his mouth." -Jose Lopez



DARKSTEEL





"He has wings, but I wanted to give him a very canine-like feel. There was a lot of back and forth to find the balance for what works for the character and might make a really cool toy." - Augusto Barranco



"On a lot of shows, you're designing either characters or props. With one person designing both, you own the whole design aesthetic and you can go back and forth very quickly." - Augusto Barranco



SKY LYNX





e didn't even know his name when we started
 rking on him. Once we got the name, I said to
 sbro 'you guys know Sky Lynx is an Autobot, right?'
 really wanted the animal aspect to come out. That's
 y I kept the animal face around his robot face, and
 e claws on the hands and legs.' -Walter Gatus





PREDACON TERRORCONS

"What we did with the Predacon Terrorcons was design a bunch of rough versions and left it up to Polygon to basically mix and match bodies, heads, wings, etc. at their whim to create the massive army that Megatron gathers at the end of it all." -Mathias Dougherty



VALLEY OF BONES ON CYBERTRON



Jose Lopez - Art Director / Characters & Props

How did you come to be involved with Transformers Prime?

I was at Cartoon Network working on *Generator Rex*. That was when I got a call from Therese [Trujillo-Animation Producer on *Transformers Prime*] to work on *Transformers*. I'd worked with her before and she was like "I've got this project, it's really cool, I think you'd be interested in it." She wouldn't tell me what it was but I was like "If you say it's cool and Jeff is involved and all these people then yeah, let me know what it is and I'll sign up." When she told me it was *Transformers* I said "I'm in" right away.

I met with Jeff and we talked a little bit about it, who was involved, Alex Kurtzman and Bob Orci at the time, and the whole thing with Hasbro started at the studio. I love that sort of stuff, jumping in at the beginning, guerilla style. That's a really good energy because they are still trying to work out what to do with the entire set-up and they kind of just let you figure things out on your own and it opens the door for a lot of really cool stuff, I think. So I gave my notice at Cartoon Network and met with Jeff and everybody at the Universal lot and they talked me through *Transformers* and you bring up the things you like, watching G1 and the movies and all that kind of stuff, what things you like, what you don't like. I remember Jeff was like, "You're in, so start working on Optimus," and that was just nerve-wracking.

So you were already a Transformers fan?

Yeah, definitely. I grew up with *Transformers*, G1. Once you go back into the show and start researching about other shows there's a gap in there. I was aware of *Beast Wars*, *Energon*, and all these other shows but G1 was the one that I liked. And then, *Transformers Animated*, I knew everybody on that show because we all worked together at Warner Brothers: Derek Wyatt, Matt Youngberg. I never worked on that show but I did visit them, one time, when they were just starting the show and it's pretty trippy that a few years later I'm doing the new *Transformers* show.

So the new Optimus Prime, did it start with you? Did it start with the toy? Did it start somewhere in between?

One of the things I've been very particular about in this process is that we always wanted to start from the beginning. We wanted these characters to originate from us. We have a very strong communication with Hasbro in terms of what the product is going to be like and their needs, but we always want to cater to the character.

For example, we learned that on the toys they always design the vehicle first and then the robot. They design a vehicle then they break it apart. With us, because the robot is the actor and is what we see 90% of the time in the show we told them that we wanted to design the robot first and from there, break it apart and create a vehicle. Obviously we'll know things like Optimus is a truck, Soundwave's going to be some kind of jet, so we know what kind of vehicle it is but we have the robot dictate the shape of the vehicle. That was one of the new things we did on the show that was pretty

interesting. But, no, we just sort of started drawing. At the beginning, there was brief talk about being influenced by the films and stuff, so you can see Bumblebee has some sort of resemblance, some of the upper body stuff, and Optimus a little bit, but then soon after that they just said "No, do your own thing, we'll take it from there." It kind of came from us and from there we showed it to the team and Hasbro and they said "This is going to work, this isn't going to work."

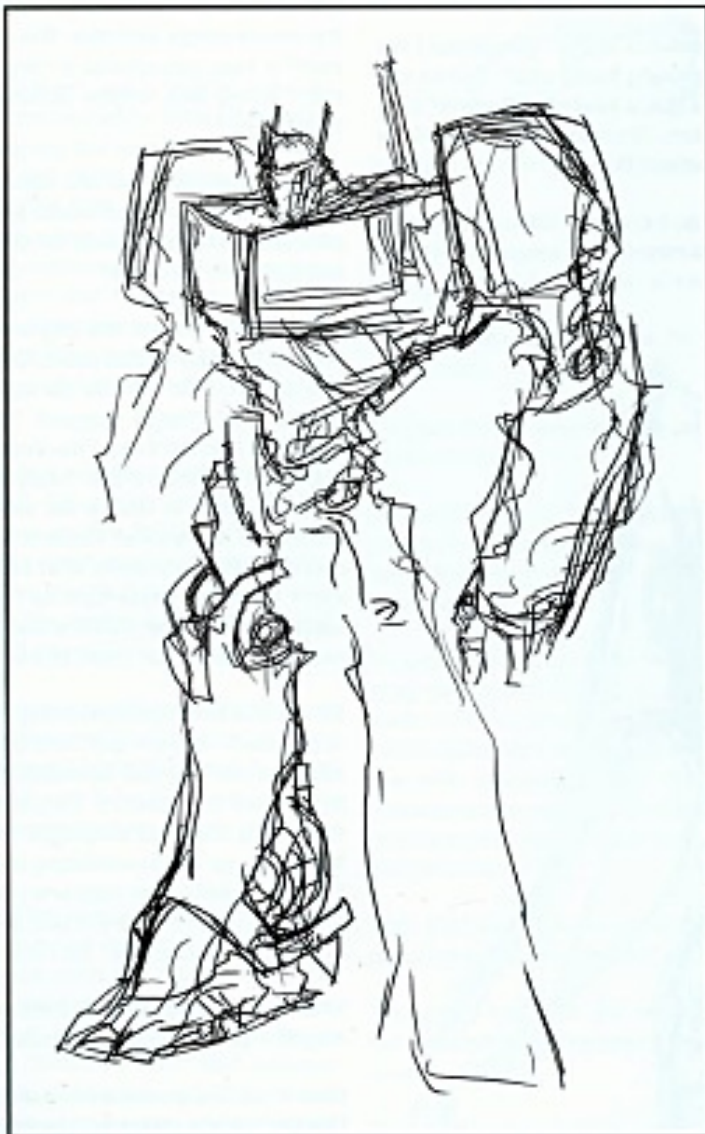
The biggest thing for me, with the team, is that we try-and I think this is one of the things that you see throughout-to make very compelling characters. To me I think, early on, people would look at my work and say "I don't see any robots in your collection. What shows have you done?" And I said "We'll figure out the robot. What I'm trying to do here is to really get a

character, to really design shape, design silhouette, design a group of metal pieces that will showcase a type of personality." That to us is the ultimate goal. We have people at Hasbro that are experts at [the toy] stuff to help us out but we always wanted to make sure that the personality comes through and they can animate well. So those are the variations between our needs and the toy needs.

What is it about a character design, especially in a CG environment, that makes it animate well?

The difference between 2D and CG to me is just what you can cheat. In 2D you have a flat surface and your character can animate and move and do little things that don't work in real life but it translates well and the illusion works well. CG pretty much functions the way real life works. You have a 3 dimensional object that if you have an object here then when he moves his arm and it's going to go through his chest, then it's going to go through his chest. In 2D you can cheat that kind of stuff. So if you look at the characters on *Prime*, once it was decided that it was going to be a CG show I was like "Let's make it crazy, let's make it as intricate as it possibly can be compared to *Animated* or other incarnations of the *Transformers*." And that was a little bit influenced by the movie. One of the things I liked about the

movie was when you first see them Transforming there's so much stuff moving around. I like that kind of stuff but, not to take away from the movie, but I think it's too busy so we really wanted to make sure we pushed it way back. We still want to have big masses that you can easily read but still there's a lot of intricacies and stuff. I would tell people that in 2D if we could animate a robot or a vehicle transforming and, because of our limits, break it into ten pieces, CG is going to allow us 1000 pieces. Working with Polygon in Japan we started testing the stuff and seeing how intricate we could get. That's it, in terms of how intricate, the detail that you can get, 3D allows you to do a lot more, especially in the way that *Prime* was going to be designed compared to 2D. And then just making sure that things



function. The way that they move and stuff is still like a person with armor. They still have to move like a humanoid being. We do have a lot of collision in his show with the shapes and stuff but as long as you can work around it or shapes and stuff then it's not too crazy.

What do you mean by "collision"?

Collision is when you have one shape crashing into another. Like with Ultra Magnus. With Ultra Magnus we have the original design with these giant shoulders so when he lifts his arm up, that giant shoulder is going to crash into his head and in CG that thing will just go right through it, so we have to figure out ways around that. We had comments from our CG studio on our storyboards where they'll say "Breakdown will fold his arms" and they'll say, "Well he can't do that because his chest comes out this far." So those physics and geometry have to function.

So how do you cheat that?

Well, stuff like that we'll say "He never crosses his arms." [Chuckles.] We work around it. But I think it's allowed us to do really funky stuff. One of the first characters I looked at and thought "This guy's kind of different" was Soundwave, and talking to Jeff and Duane [Capizzi, *Transformers Prime* Head Writer] it was always "What is the character about?"

They would say "He's always in the shadows, he never talks. He's very mysterious." I was like "Let's make him like a ninja." You've got this thing



where the wings are the arms and when you look at them straight on they're really thin so it's like they kind of disappear but then when he moves they we can play around with the shapes. So it's that kind of stuff that we tried to figure out as we were designing the characters.

Can you talk a bit about the importance of silhouettes for characters?

Silhouettes are huge. When we start designing characters, silhouettes and colors take a big part. We design all the intricacies in terms of the detail and the face but what we want is when you put them all together in a line up you want to be able to recognize our characters right off the bat without seeing any colors, seeing any detail and the best way to do that is by creating a simple silhouette which is very identifiable as that character. So what we would do is go in and say "Optimus has a big upper body, a thin waist, really big feet, Bulkhead's going to be more of the chubbier guy so he's going to be more of a round silhouette, Arcee is the smallest and so on. So it's about how you play around and make recognizable shapes. Like Bumblebee, we put the wheels on the shoulders facing forwards so you can automatically see the round shape and then the doors for the wings and stuff. So that kind of stuff is how you create a very simple shape that people can look at it and right away say, that's Optimus, that's Arcee, that's Bumblebee, that's Megatron.

You've mentioned that the designs of the characters started with your team, started in robot mode. Were there modifications made to the character designs based on feedback from Hasbro and what would make it toy work or not work?

Yeah, at the end of the day we tried to do what we came up with, it's just finding a happy middle point. Sometimes they would tell us "You know what you put the door on this part of the robot but it's impossible to put it there on the toy." They'll suggest, "Why don't you put it on the upper arm." for example. And we'll say "You know what, the upper arm is hard for us because you can't animate it and rotate his shoulder." So then we'll say, "Ok, we'll put it somewhere in that area, we'll put it on the back, you can put it on the shoulder," then what Hasbro has started doing with us is they've started giving us these sheets that showed the major points on a character—the stuff that was important to them. Let's say, "Optimus, make sure he has windshields on the chest, a mask and the wheels on the lower level," so that makes it easier for them to make the product.

So we started communicating. At the beginning it was more like "Fih, here is and we'll figure it out on the way," but then as we moved on through the seasons we started developing a pipeline that would work a lot better for both of us. But yeah, if they come in and say "You know what, this thing is too crazy. Can you simplify it here or change it here?" then we'll do it. We try to be as accommodating as possible. To me I realize some characters like Soundwave, the toys are going to be really hard to make but I'm still like "Just do it, you'll figure it out, do it," and they did and later on they were like "That looks awesome." So I'm happy with that outcome.

What's the process by which a character goes from being a name and maybe a brief description to being a wholly realized design?

Duane will do a season breakdown and then they will come together and Hasbro will say "Actually we'd really like it if you could put Dreadwing and Smokescreen and Shockwave in this season." So then we'll go in and Duane will say, "Ok we'll put them in at this point, at this point, at this point." I'll then way ahead of time I'll know which characters are coming up and then we'll start the design.

They'll come in and tell me, "Ok, so for episode 20 Smokescreen's going to be in the show," so I'll get a sheet from Hasbro which has the key points that we would like to have on the character and then basically at that point I'll just start sketching. I'm one of the few guys at the studio that still uses paper. We'll go in and decide "Right, Optimus is going to be a truck, or Smokescreen's going to be this kind of vehicle," so from the get go what my parameters are in terms of the vehicle, if it's a flying vehicle like a chopper or if it's a tank so I know what to take from. And then basically it's just sketches, just really loose stuff and then I just feed Jeff and Duane and those guys ideas. They say if they like an idea and tell me to keep working on it so I'll go and

tighter versions of the stuff and like I was saying at the beginning it's about trying to get that silhouette, that real shape that I feel gives the vibe of the character.

Then from there I start working on the details, ok if he's a jet, where am I putting the wings? Where am I putting the tail? This part? That part? What kind of jet is it? Then I start breaking those pieces apart, but I start breaking them based on the silhouette that I have that I feel dictates the type of character that it is. I'll never go in and say "Well, I have a giant wheel and I don't know where to put it so I'll put it on the chest, even though it doesn't look like the right character." I'll go to Jeff and say "This type of vehicle is just not working, we need to come up with something else," and we'll go and figure out something else.

I just do tons and tons of sketches and have my team go through sketches and stuff until we find something we like. Sometimes it's kind of like Frankenstein process. You'll do a sketch and go "Oh, this piece and this piece here look really cool but everything else looks crap," so you'll take those pieces and start working around them.

I'll work in paper and pencil and then I'll scan them and transfer them to Photoshop and then I'll go and do tighter versions and add a little bit of color and from there, once we like it, we start designing the vehicle. I'll give them a rough version of the robot first and then we'll start designing a vehicle and then what happens is you finalize the vehicle first and you take those parts and you put them on the robot. At the same time we're designing we're trying to figure out the transformation—what parts go where—how the transformation is going to function. We'll ask "Does he have any weapons?" Normally with Prime the arms turn into cannons. We'll say "Does he have an additional type of weapon? Does he have something specific?" So I'll go talk to the writers about that because a lot of that stuff is figured out before the script stage.

One of the cool things is that we can give Hasbro a really rough design just to keep them going and then once we've got the script we can finalize everything and feed it to them. So then I'll pass on the design to the team and we'll start basically dissecting everything. We'll start working on the details. We do mouth charts, we do expressions, we do a turnaround of the graphics and how the character looks from all the angles and then we start working with color. Augusto [Barranco] did all the color work on Prime.

The way I'd describe our style is stylized realism. It's still sort of cartoony but then the way we handle materials and textures on the show is very realistic. We do a lot of reference. For Bulkhead I remember seeing a car that had a really matte finish and I came in and said "Why don't we give him that finish? That would be cool." So we reference texture on the robots in a very realistic way.

One of the things I was very into at the beginning was wanting to keep our characters, color-wise, like G1. Keep Optimus red and blue, Bumblebee yellow obviously, Megatron all silver, Ratchet with the red-orange and white, Soundwave dark blue. I think Starscream was the only one that we couldn't because the [G1] colors were so crazy, red and blue. And then we tried to balance it out. Everyone always says "Make 'em red." But Optimus is red, Knock-Out is red, so we always try to balance it out. One of the things that kept coming out with the villains is that we only use purple on the bad guys. We never put purple on the Autobots. We established that Dark Energon is purple and stuff so if the audience sees purple we wanted them to identify it as the color of the bad guys.

So we'll go in and do the color and start texturing stuff. We do little touches a kind of pick out character personality and we'll go in and make sure everything has a texture. We'll go in and dictate what type of metal it is, how it reacts to light, how much battle-damage the characters have with little scratches and stuff. I don't know if you see it on the show but there is a lot of little details, scratches and stuff, the way the light carries the texturing of the surfaces is very interesting. It's pretty cool—there's a lot of detail that goes into it. Airachnid was cool because I sent them a picture of a remote control, plastic, and told them "This is the kind of texture we want, shiny like this," and you can see she looks clean. It's great to see how



the light reacts to the surfaces.

And then, for the last season we went in and redesigned Optimus and designed Predaking and we went a little nuts on this stuff. Predaking is insane, we did a lot of detail on him.

In the context of the show, he's huge, so sometimes you get to see him really close.

Polygon did an amazing job on animating him. They just have like a million parts moving.

In the early design for *Beast Hunters* Optimus Prime, we had a lot of damage on him, but the way he became that design, that kind of magical way, we felt we wanted him to be super clean, so that was something we went back and changed.

So we'll send all that stuff to Polygon and they'll start doing gray models, gray versions of this for work in progress. So I'll go in and do my notes, tell them to move stuff around, and that's when they'll say "Oh you put this metal piece here on the shoulder, that's going to create problems." Most of the time it's just where the points of articulation are: the neck, the shoulders, the knees, the hips. Anything where there's going to be rotation or movement, those are the areas you have to keep an eye on to make sure they're clear.

With the new Optimus we were talking about "Is he too big, is he going to look funny running around" so we do tests and stuff.

This might be more of a storyboard question but can you ever get away with cheating on the characters' relative sizes or is that very much locked in?

That's locked in. I think we have done a few little cheats here and there, especially in the relationship to the humans but in CG once you lock it in, the size of the character is pretty much set. You can but it's really difficult to go back and change it. If you want to do it, you do it in post [production] and manipulate shots and stuff, but to actually change the models, it's very difficult.

In a show like Prime you have some very different cohorts of characters. You've got the Autobots and Decepticons who are pretty different from each other and then you have your set of humans who are different scales, different textures. Can you speak about the challenges of doing that?

We pretty much handled them all the time in terms of the process. Dictating color and texture was pretty much the same. We keep going back and taking whatever the character is like and carrying every aspect of the character

in that direction. So, if it's a villain, but if it's more of a comic relief type character we'd try to do a little bit more, a little bit different. I think there's characters like Knock-Out where, at the beginning, when we were first designing him, that they said let's make him this hot rod, all into his paint and how it looks but I think eventually he became a lot more comedic than when we designed him but the idea was always he's like this hot car, he's in love with himself. He just thinks he looks good and wants to keep his body in shape.

The process is all the same. Some of the stuff we would keep an eye on, like the size of the vehicle compared to the robot, because we do want to manipulate the robot to be a lot bigger in relation to the humans than the vehicle. With the vehicles you have to keep it sort of normal. We'll go in and cheat some of the stuff—Arcee is the most obvious one. Arcee, when we first designed her, because we knew she was going to change so much in size I tried to hide the vehicle parts as much as possible. I tried to keep the wheels hidden and that was one of the conversations we had early on where they would say we're not showing enough vehicle parts on her and I said, "I'm trying to hide them because the wheel goes from here to here and it's going to be really obvious." I think you can see it a little bit on the show but that's the kind of thing we keep an eye on.

In terms of the way we handle the different characters, because you start creating a sort of language, like a Cybertronian language for the characters because they all come from the same sort of world you kind of treat them the same way. But we do things like I was saying earlier, try to keep purple only for the bad guys, red eyes for the bad guys, little things like that.

One of the issues, because of the limited asset count that we have on the show, is a lot of times they'll come in and you'll see the robot before they scan the vehicle so they're not Cybertronian. The argument is that they should be Cybertronian, they'd be completely different and then once they scan it they completely change and become something else. So a lot of times if you see a character for a long time before they scan a vehicle we try to make it a little more intricate, try to hide some of the parts and stuff but still, right off the bat he has four wheels and a hood—he looks like a regular car. We would have loved to do a Cybertronian version and then do a version once he's scanned a vehicle.

You also create the props for the show. How does that process go?

That process is really cool. When I came into the show I wanted to be in charge of the props as well because the robots are connected 100% to their vehicle mode so I wanted to make sure that our guys and my team connected on both departments, so we handle all the robots, all the vehicles, all the props and we handle all the color and so the initial reason we wanted to do it was because of that connection to the vehicle but from there it goes to doing every little prop. Because the show is realistic in terms of its core essence a lot of the times with the human stuff, with the Earthbound stuff, some of the time we'll design them but other times we'll just copy whatever if it's nothing special, like a spoon in a bowl. But once you get to the Cybertronian stuff, that's when it gets really interesting, like the Matrix of Leadership, the weapons, the relics. That's when we got really into it because although we had designed a couple of things, once we had designed the matrix, that kind of gave us a language for the Cybertronian stuff. We designed the Matrix, we designed the globes and stuff for Vector Sigma.

There are design elements that we started incorporating that was the language for everything Cybertronian.

What sort of aesthetic elements did you use?

It's kind of hard to explain but there's this element of elegance in how we manipulate the use of metal. I think to me a lot of the Cybertronian stuff that we did was designed to be above the normal aesthetic. It wasn't just designed on an assembly line because a lot of the Cybertronian elements that we deal with have this magical aspect to them. We wanted to make them feel like they were more regal than the norm. There's a lot of gold in them. If you look at the little elements and languages and the intricacies of design—the core aspects of the Matrix, the Star Saber, the All Spark—a lot of the stuff we did is design one thing and we'd have a way where the metal parts connect with each other and then we created this very specific texture, this kind of crackly finish and all the little gold elements in there. That's how we created the language for this stuff.

We tried to do a lot of very alien stuff but at the same time this is very elegant. Even the T-Cog that they take from Bumblebee has that sort of uniqueness. There's elements that feel sort of organic at the same time but out of a metal structure.

I think it takes it back to medieval times when you have the Apex Armor and the sword of the white knight and stuff. It looks very elegant, it doesn't look like something the rest of the soldiers are carrying, which would be mass manufactured, so we wanted to make sure that the language in the design felt extremely regal.

It's about finding the balance. When Optimus opens his chest and you see inside, you can see a lot of the metal parts on his body but they still feel sort of humanoid, but then I think the Matrix really stands out. It's a very clean silhouette and with the gold—they're very defined shapes.

And that's a design you borrowed handily from G1.

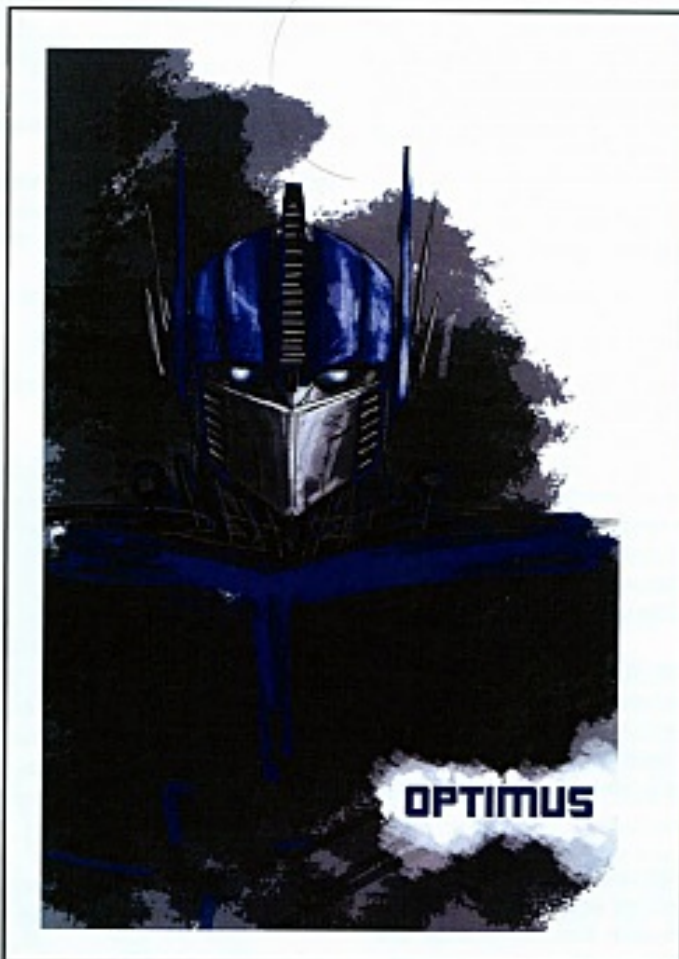
Yeah we look at all that stuff, especially I think throughout, G1 was always our main source. We look at it and if it fits then we take from it. If not—there's a big gap in terms of design sensibilities from then until now—but then Brand will give us, from the comics or from other sources, elements and stuff and tell us "You can do whatever you want

as long as it's kind of this way." If I recall correctly, Vector Sigma was a ball with a key or something and we decided we couldn't use that, but we did look at it. G1 is always it, especially with the Matrix and stuff. We change it but overall it comes from the G1 design.

Can you talk a little bit about the people on the team, what their roles are, their strengths?

So for the character department I have two guys, Walter Gatus, who I've worked with for many years—he's kind of the guy that I take with me everywhere I go. He understands the process of animation very well. I brought him because he helped me a lot with the human designs and he helped me a lot in terms of creating more of a character in my design, pushing the character rather than the metal aspects of the robots and stuff.

Then I brought Augusto Barranco who worked on the live action films. The





main reason I brought him in was because of the color. I think he's amazing with color and I wanted him to take a stab at the color direction for the robots but then he comes from a heavy prop design background, designing metal vehicles and stuff, so I always felt that the combination between him and Walter could meld pretty well in terms of forming the character and the personality and stuff and then all the metal aspects that Augusto's really good at.

Christie [Tseng] was a really young girl who came to do props and she was amazing, a nineteen year old girl doing this stuff. She helped design Bumblebee and parts of a lot of the early characters.

Daniel Park was crazy because he came from product design. Daniel could create a real product and have it accepted, so I thought he'd be good with the everyday stuff. He was my go-to guy for the transformations. I would give him this stuff and be like "This is the door, these are the wheels, this goes here, this goes here, now go in and make sense of it." And he worked on most of the transformations for the early characters. He did a lot of the vehicles as well. That was one of the reasons I brought him over.

He left and we brought in April Eriksson. April came from GI-Joe and she was great in terms of all the mechanical stuff as well. She did a lot of really good stuff on the show.

You look at their work and there are guys who are really good at the human world stuff, designing the cars and then you have the guys who are better in terms of the higher concept stuff, the alien stuff. It's like "I need a T-Cog. I don't know what that is, I don't know what it looks like—come up with something." Daniel was really good at that. He'll go in and sketch up variations of variations of shapes and then it's just "Hey, that looks kind of weird, let's go with that," and then we start working around that.

Everybody on my team kind of does a bit of everything. That's one of the cool things about working on the robots. "Here's a robot, but don't be surprised if I throw a car at you at the same time." These guys love that kind of stuff, figuring out the robots, figuring out the vehicles and putting it all together. And then when you get the toys it's cool, because Augusto would go "Hey Bulkhead, I love the robot," and I'd go "I love the truck," because I designed the robot and he designed the vehicle and then we'll pull them together, so the team gets to do a little bit of everything.

Augusto and I worked on the *Turtles* movie. He was just 23, 24 at the time but I always liked his colors so he helped me a lot with that and Walter, Walter's an amazing designer. I worked with him for a very long time so he's one of my guys that I trust. The main thing about the team is that you want

to have people where you can go, "Take this, run with it, and go," and they'll take it to their heart. And everybody, they're fans of Transformers. They love the brand, they grew up with it and nobody wants to do something crappy especially with the fans.

The thing is with the fans sometimes you can't cater to them, you have to cater to some degree but you're never going to please everybody. If you were talking about Superman, for example, you'd be like "Yeah, Superman, I love but you've got to open your heart to other versions."

I think one of the reasons you have to be careful about just giving the fans what they want is that the fans want what they've already seen and they already have what they've already seen so what's the point, if that's all you're doing?

Soundwave at the beginning—he was one where they were like "The fans are going to kill you once they see this guy." Some stuff you take liberties, other stuff you think "This stuff is too important, we can't mess with it, we'll keep it the same way." Then you have the ultimate say, which is Hasbro. If they want something then straight away you have to do it, even if you think the fans are not going to go for it.

And the funny thing is, once you look at it, you'd start designing, it came to writing and then the voice acting and you're like, "Oh crap, that really sounds like the character." The trippiest one was Miko because when I met Tania [Gunadi] the voice of Miko, I was like "Oh crap, she looks just like the drawing. It was pretty trippy." And then you go to Optimus and Megatron with Peter and Frank. They came in one time and I was like "Can you sign this?"

Walter and I got a chance to go to Rhode Island late last year and they were working on [our characters] and it was just amazing to see them. We'll go in and we'll design and stuff but ultimately we are catering to animation, catering to something that hopefully on screen looks cool and animates well and you can see the character and be like "Oh yeah, that's totally the personality." But then when you see the product and see what these guys do and it's like "Holy crap." The movie stuff is even crazier.

We're very proud of the show—we worked really hard. The beginning was really really tough—just trying to get into the mindset of the whole world but I think, because we are fans and because we come more from the design sense we were a little more open in terms of what we were doing, the approach. I think people like it. It's the proudest show I've worked on. I've done some really cool stuff but this is really something else.

CHAPTER THREE

HUMANS & PROPS







OFF MODEL - REFERENCE ONLY

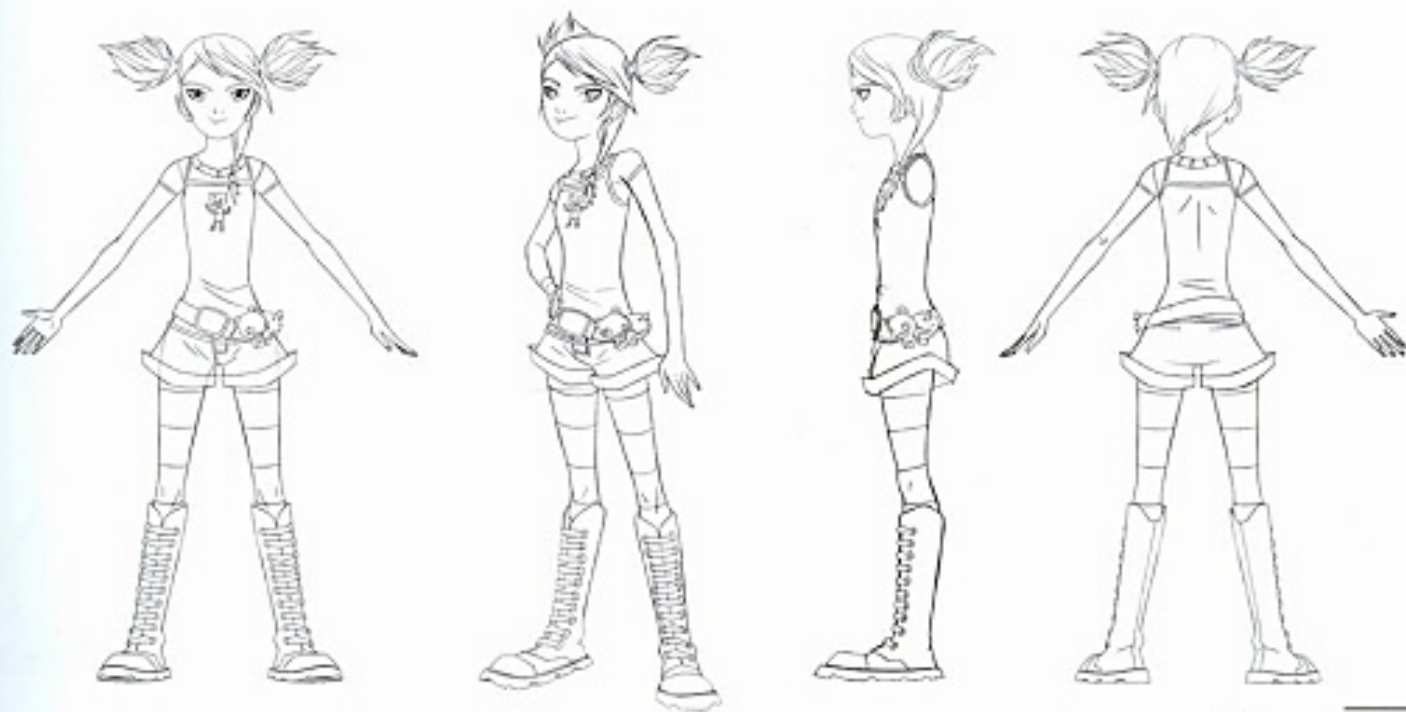
JACK

"One of the things that everyone thought was interesting was that I gave [Jack] dark hair. Typically your hero has blond or light hair, but I thought the dark hair fit his personality better." -Jose Lopez



MIKO

"Miko went through the most drastic changes in terms of style. I just produced pages and pages of sketches, trying to figure out what she'd look like. We looked at a lot of harajuku girls. We wanted her to be a bit more eccentric than the other kids, so we gave her multicolored clothes with the short shorts, the color to her hair, the ponytails. We did some really cool texturing on her; look closely at her boots, at her belt. At one point I suggested that the little characters on her belt turn out to be Decepticon spies, but they didn't do that." -Jose Lopez





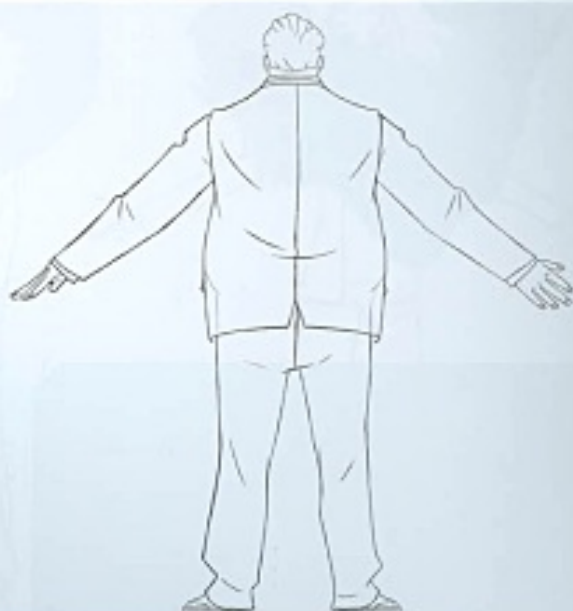
RAFAEL

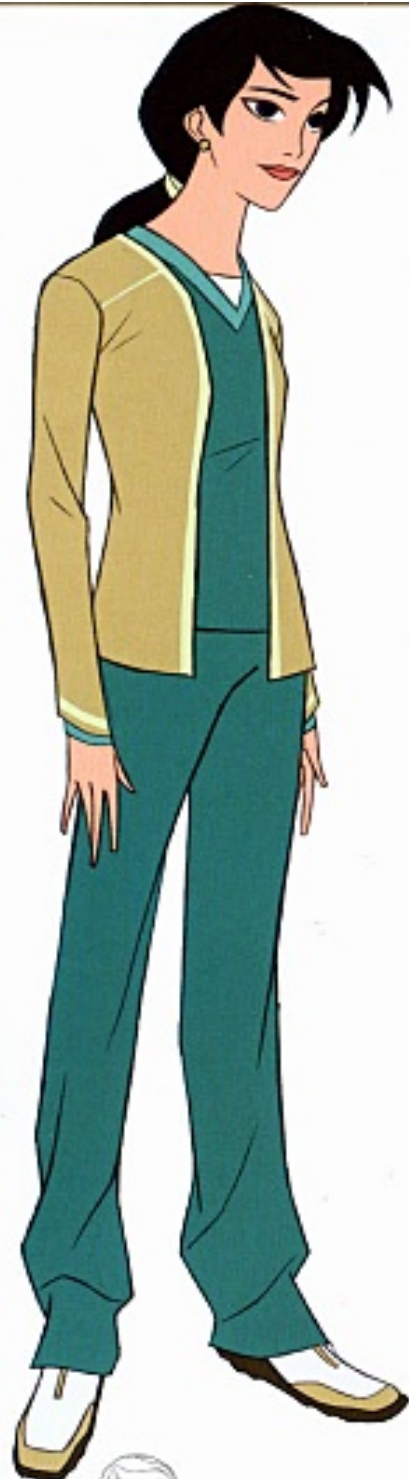
"We had to find a balance between how nerdy he was supposed to look and how old he was supposed to be. In some sketches he was really young, but we ultimately made him a little bit older. One of the things about his design was that everything fits him a little bigger because he comes from a big family, so everything is a hand-me-down." -Jose Lopez



FOWLER

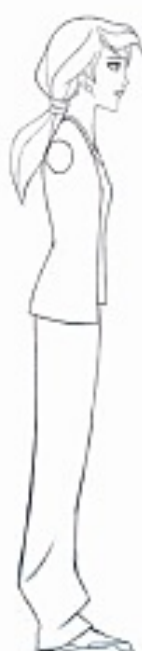
"I thought it'd be awesome if he looked beat up but he could still kick everyone's ass." -Jose Lopez

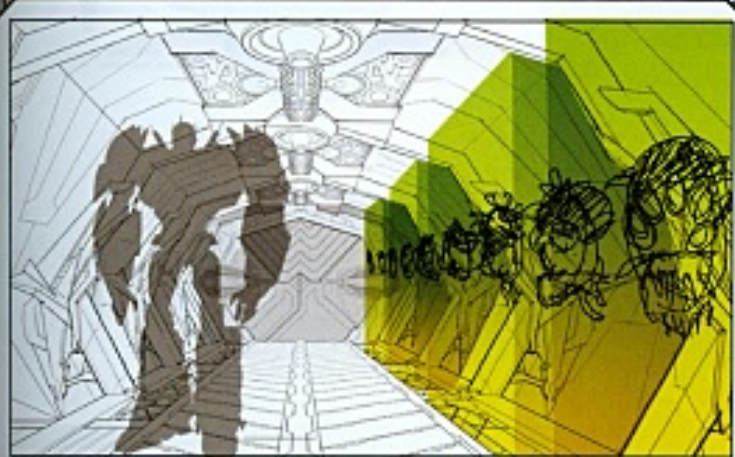




JUNE

"At the beginning we weren't sure how much of June we'd see. I think I only did 2-3 versions of her. I did a couple of costume changes; we tried sweaters, but stuck with scrubs because we wanted her to have that nurse look." -Jose Lopez



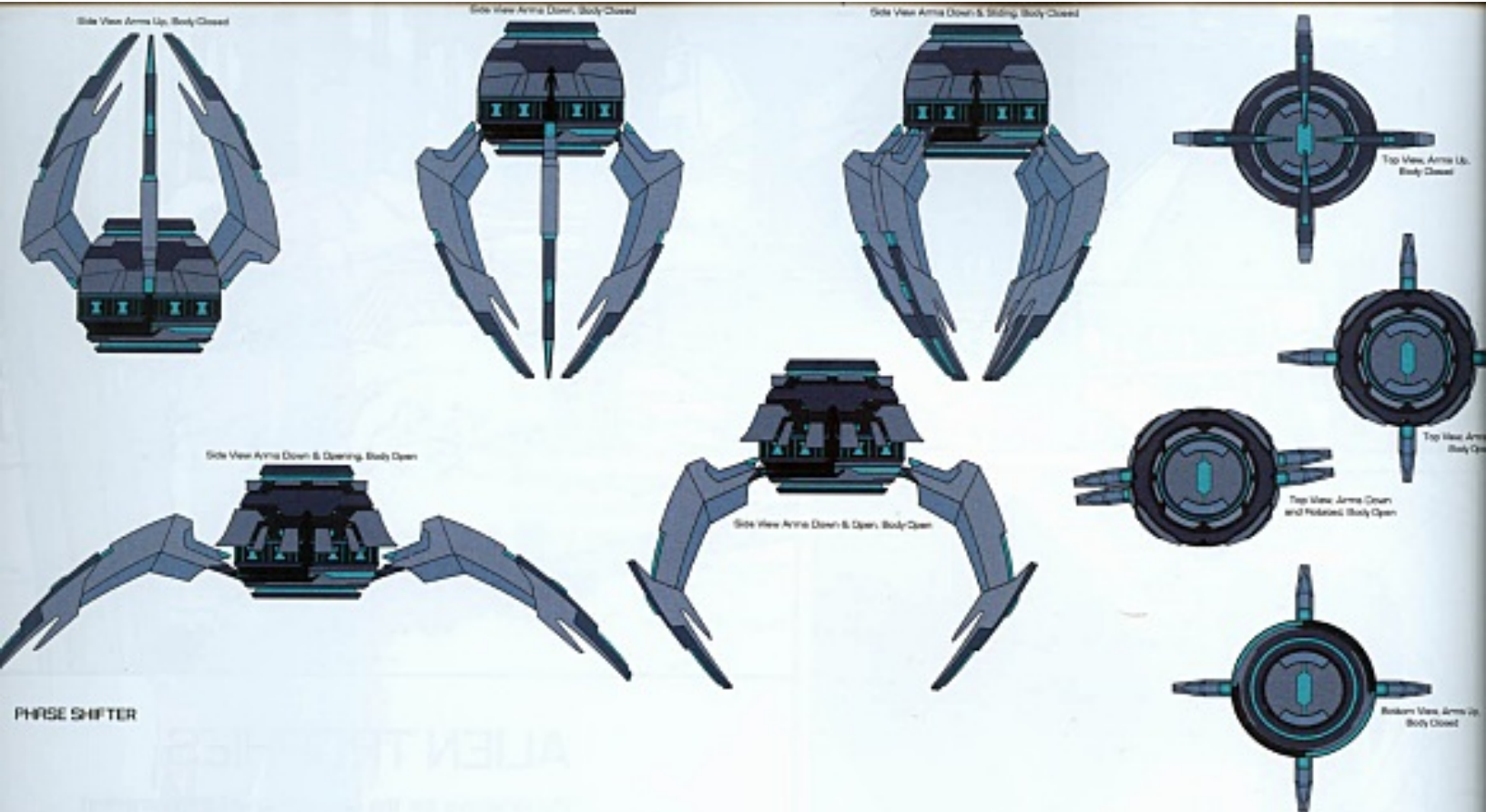


INT AJRACHNID SPACESHIP TROPHY ROOM - ROUGH

ALIEN TROPHIES

"The directive for the day was 'give us the craziest creatures we can come up with.' The more badass her trophy room is, the more badass she is. I had fun with the guy with two mouths, one on his forehead. The squid-like looking guy was one of mine too; I was going for a Mon Calamari vibe." -Walter Gatus





RESONANCE BLASTER

Transformers Prime has a highly mythic feel to it, due in a large part to the number of ancient relics and artifacts that pop up each season.



APEX RELIC



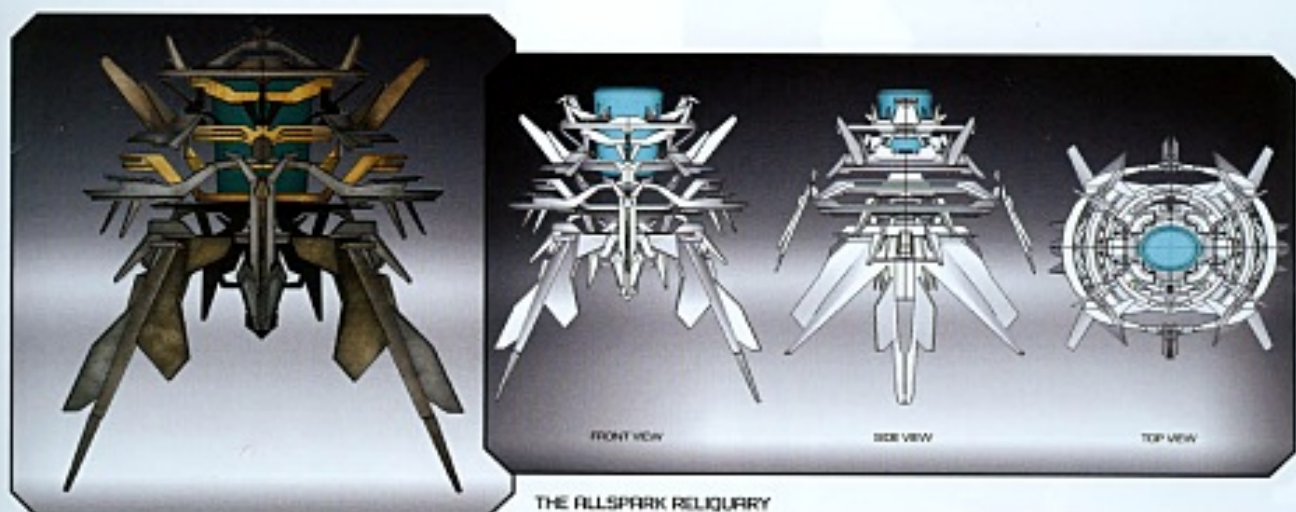
TRANSFORMERS

IMMOBILIZER

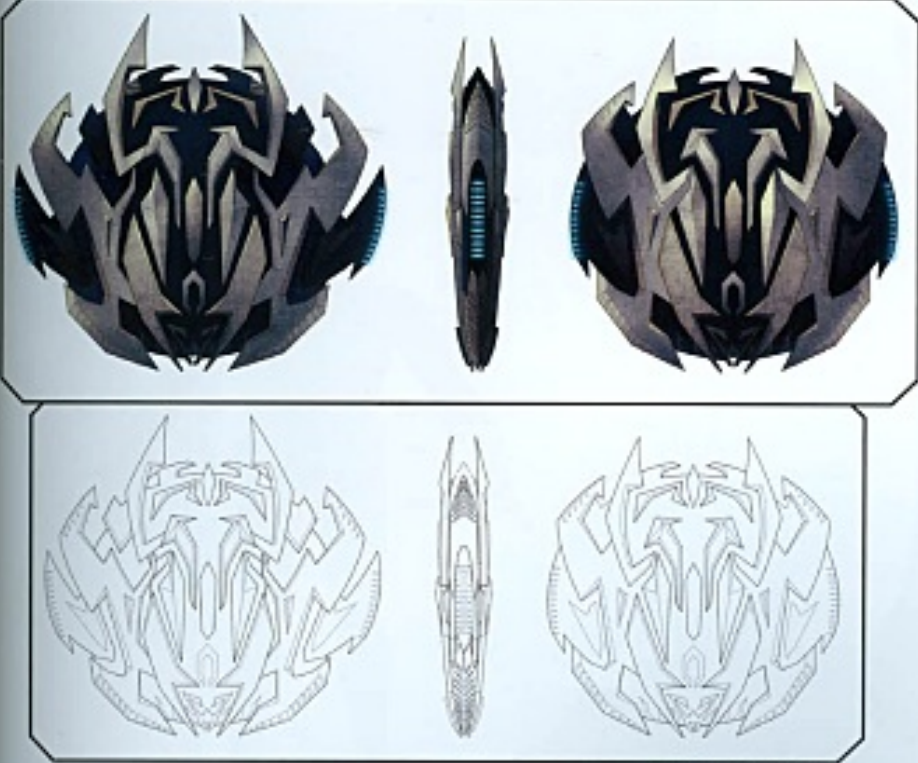
IMMOBILIZER
CLEAN
EMERGE 100
W. GATUN
08-06-10

TRANSFORMERS

IMMOBILIZER
CLEAN
EMERGE 100
W. GATUN
08-06-10



THE ALLSPARK RELIQUARY



SPARK EXTRACTOR

RELICS

The Phase Shifter, allowing its bearer to walk through walls, played an important role in numerous episodes, as Smokescreen took an immediate shine to it. The sonic-based Resonance Blaster, too, showed up time and again, usually in Decepticon hands. The Apex Armor, which grants invulnerability to its wearer, has been donned by diverse beings of all stripes, including Starscream, Arcee, and even Mikol.

The Immobilizer, rendering its victims inert, was used many times in the conflict by Autobot and Decepticon alike. It met its end at Knockout's hands in *Predacons Rising*. *Predacons Rising* also introduced the All Spark Reliquary, a repository for Primus' life essence. Far less benign is the Spark Extractor, another artifact used by both Autobots and Decepticons, eventually destroyed by Megatron.



SILAS

Silas, AKA Colonel Leland Bishop, leads MECH, an organization seeking political control through the application of Cybertronian technology. His obsession would eventually lead to his surgical implantation inside the corpse of Breakdown. "When he became Silas's fighting 'bot, we had to figure out how he was actually connected, what sort of damage there was, even come up with the lighting for the interior of the body. It was a challenge." -Augusto Barranco





DAMOCLES SATELLITE



MECH SURGEON

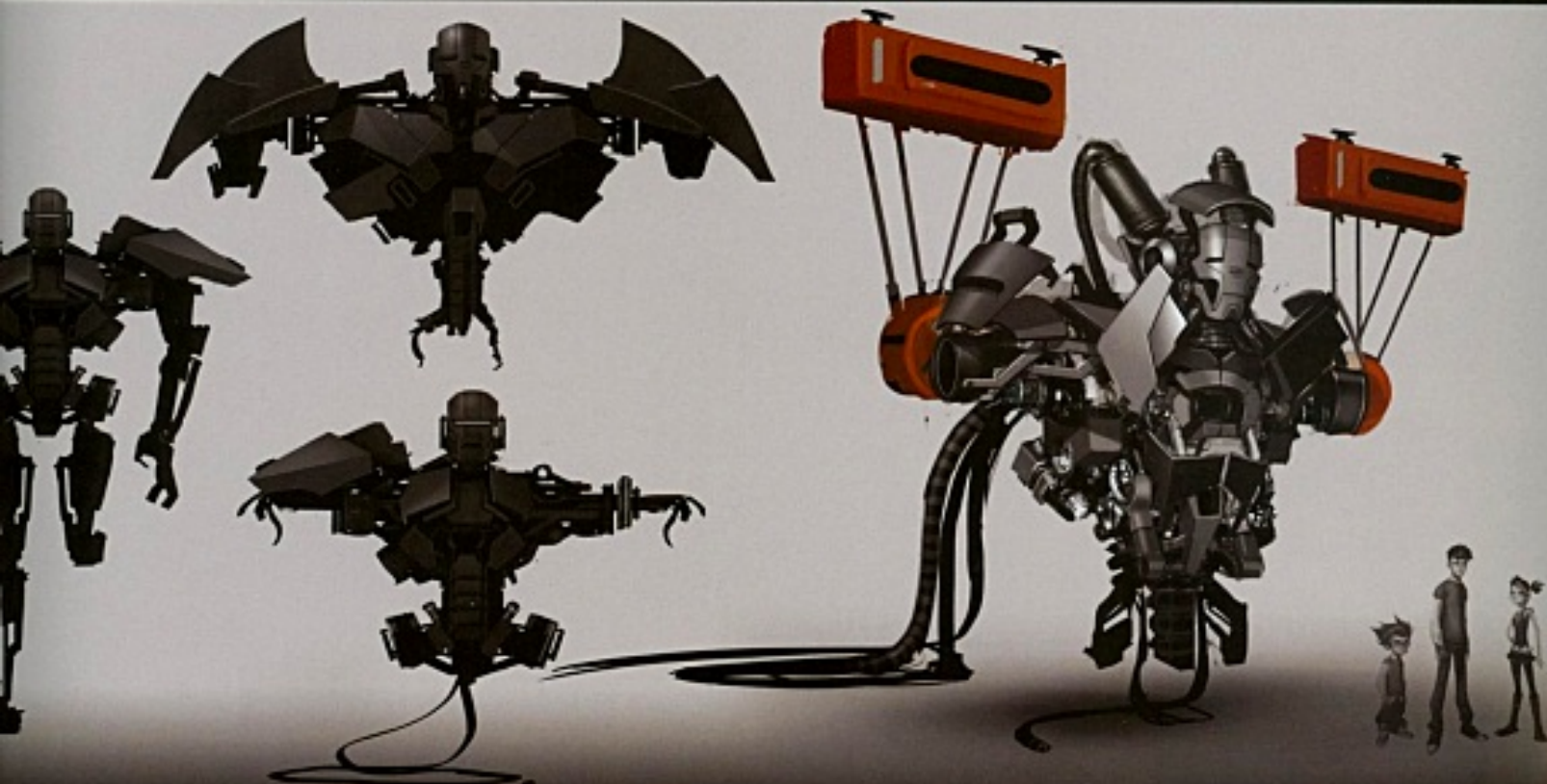


MECH COMMANDO

MECH

"They wanted a steam-punkish look to MECH. We couldn't do that exactly, because it didn't fit into the world, so we modified it, modernized it, but those roots still show." -Walter Gatus

PROTOTYPE ROBOT



Part Two:
BACKGROUNDS & SETS





INTRODUCTION:

Vince Toyama - Production Designer

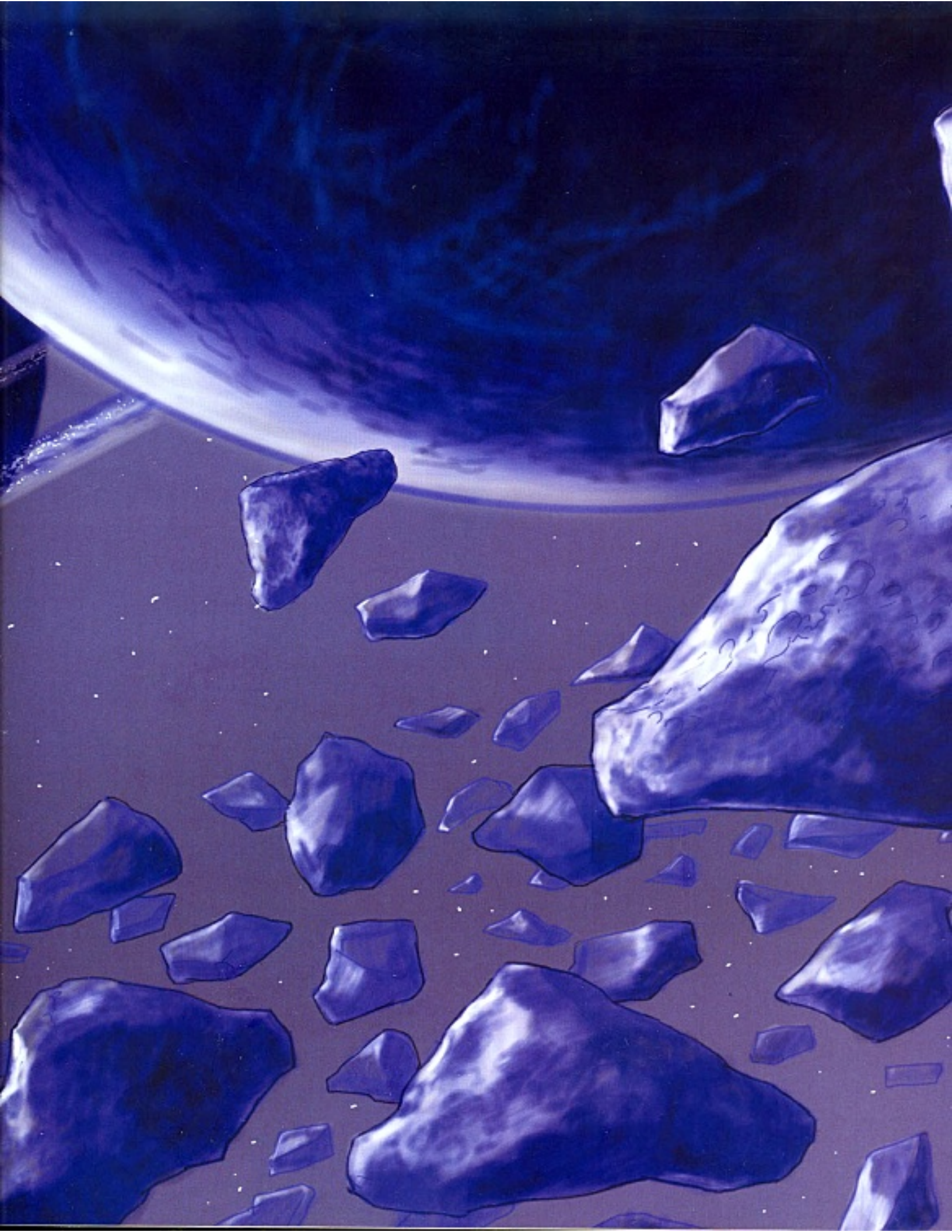
The preproduction stages for *Transformers Prime* validate the concept of working hard and staying focused on a clear vision of excellence. Faced with the task of developing and delivering to the network a block of five computer-animated shows in less than ten months was near to impossible. But we did just that. And we did it while maintaining a commitment to the highest standards of quality TV animation. As you may or may not know, TV animation production is an exercise in stamina and faith. You begin this marathon sprint of a production process never really knowing what the outcome will be. Long hours, constant deadlines, hundreds of designs to resolve, and volumes of documents and drawings define the process. I've been in this industry seventeen years and you always hope the end product is something to cheer about, but you learn to temper your expectations with a liberal dose of anticipated disappointment. In spite of this slightly cynical approach, I believe we maintained a positive outlook because of the camaraderie of real friendship and the assembly of amazing talent on every level, encompassing all facets from the writing, to the design, directing, storyboarding, voice acting, soundtrack and animation. Even before footage ever came back from Japan, there was the unshakable belief that we were truly working on something special.

I am honored to share our artwork with you, the fan, because so often in TV animation the artist rarely receives the recognition for their work behind the scenes. As production designer, my efforts have

always been to help establish both cool and believable worlds that support the story and characters while never becoming a distraction. Understanding that the human eye will inherently sense improper scale and proportion makes designing environments a tricky challenge. You'll notice in the following pages that the designs in this section reflect a remarkable level of technical and artistic skills for a Saturday morning cartoon. In retrospect, I couldn't be more proud of my background design team of Jason Park, Jevon Bue and Marcelo Bonifacio who all contributed in their unique way to the show's awesome and realistic set designs. And to make this experience so much sweeter, the background designs were in fact noticed for all the right reasons, with Jason Park and myself winning an Emmy Award for Outstanding Individual Achievement in Animation for Background Design.

There is also a life lesson here. When you work hard toward a goal and you achieve that goal, never allow anyone to frame that success as "lucky." Luck is better defined when your hard work and preparation encounter opportunity, and you capitalize on that moment. The following are samples of our hard work that we delivered on the opportunity to reimagine such an amazing franchise property. I may be a little biased, but unequivocally this is the best *Transformers* show ever produced for television and perhaps the best computer-animated series on TV today.







CHAPTER FOUR

EARTH





THIS SKETCHUP MODEL REPRESENTS A TYPICAL SECTION OF THE CITY OF JASPER. NOTE: THIS MODEL IS INTENDED AS A GUIDELINE FOR THE CITY LAYOUT. ONLY BUILD NECESSARY SETS AS DICTATED BY THE STORYBOARDS.

1. HEAVY INDUSTRIAL ZONE - May occur in future expansions. This is characterized by train tracks, river wash, electrical towers, and all non commercial buildings. This zone represents the very edge of the city.

2. LIGHT INDUSTRIAL/COMMERCIAL - This zone is adjacent to Mainstreet, characterized by gas stations, fast food restaurants, convenience stores, storage warehouse and automotive businesses.

3. DESERT - See photo reference

6. COMMERCIAL ZONE - All stores and shops in this area. These buildings will define the small town identity of Jasper. Behind these commercial buildings will be the alleys.

7. RESIDENTIAL ZONE - Resident neighborhoods will be defined by style tract homes. See additional design reference.

8. KO BURGER - See additional design reference

4. MAINSTREET - Where all city scenes will probably occur

5. DESERT HIGHWAY - Main highway out of town that leads to desert and the Autobot headquarters



It's not just the character designs that give the world of *Prime* such an amazing feel. The sets the characters interact with are so detailed and so beautiful that some of them almost become characters in their own right. Jasper, Nevada, is the hometown of the Autobots' human companions. It's a small town, but one that has its own distinct look to it.





Abandoned missile silo is open at different levels for visual interest

Walls are made of reinforced concrete

Garage / repair area is located at the base level of the missile silo

Makeshift first aid area for humans is located in close proximity to the Autobot garage / repair area

Central platform has multiple levels for flexibility of staging

Hallway large enough for Autobots leads to spaces as dictated in future storylines

Bridge / computer communication center for Autobots and humans. Elevated monitors are all translucent

Autobot logo is part of the headquarters floor pattern

Earthbridge reflects Cybertronian technology

Ceiling truss system with hanging lights

Circulation / mechanical tower with enclosed elevator for humans

Optimus shown for scale

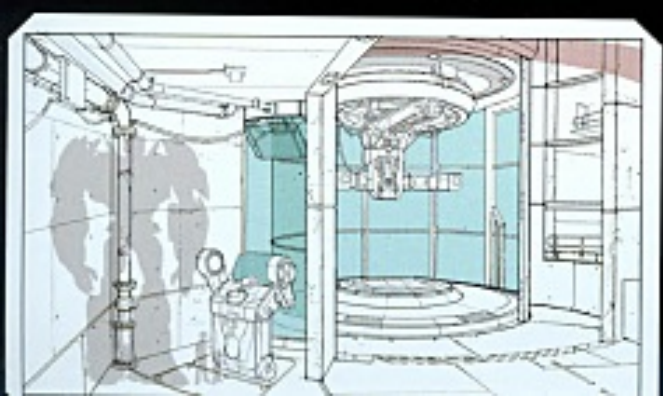
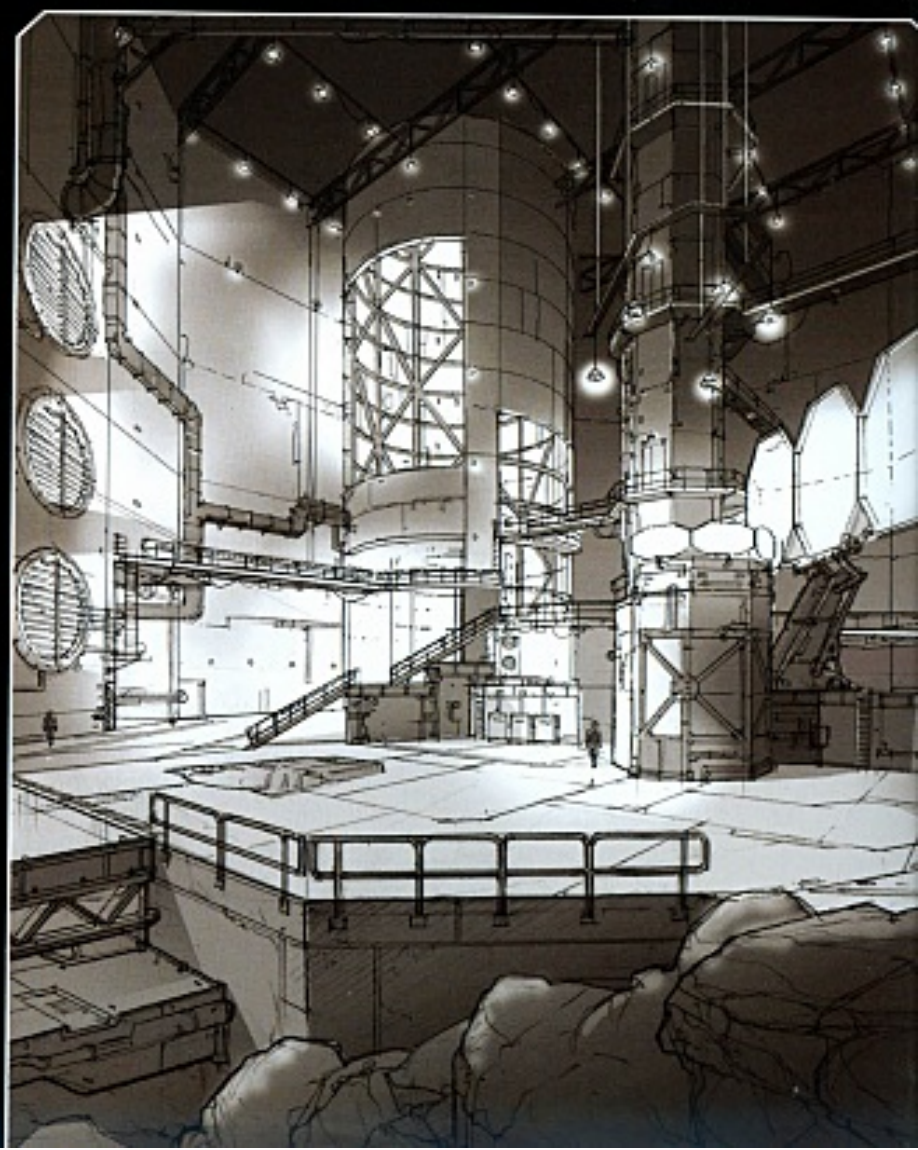
Concrete walls stop as shown to expose a large rock cavern

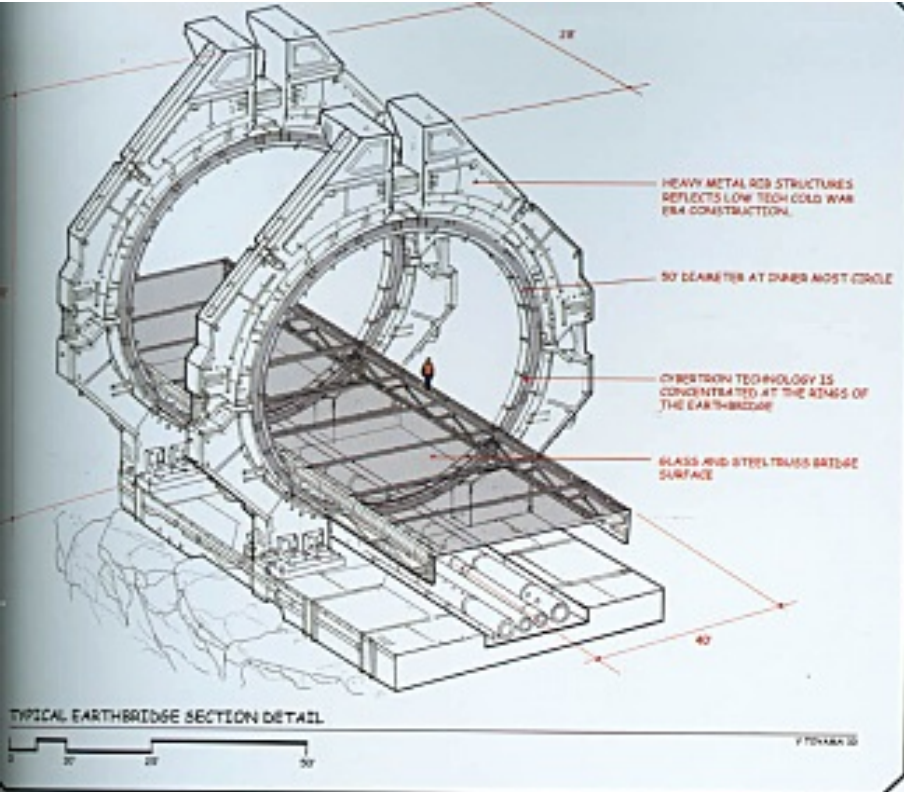
Entry ramp for Transformer vehicular mode and other automobiles

AUTOBOT HEADQUARTERS DIAGRAM

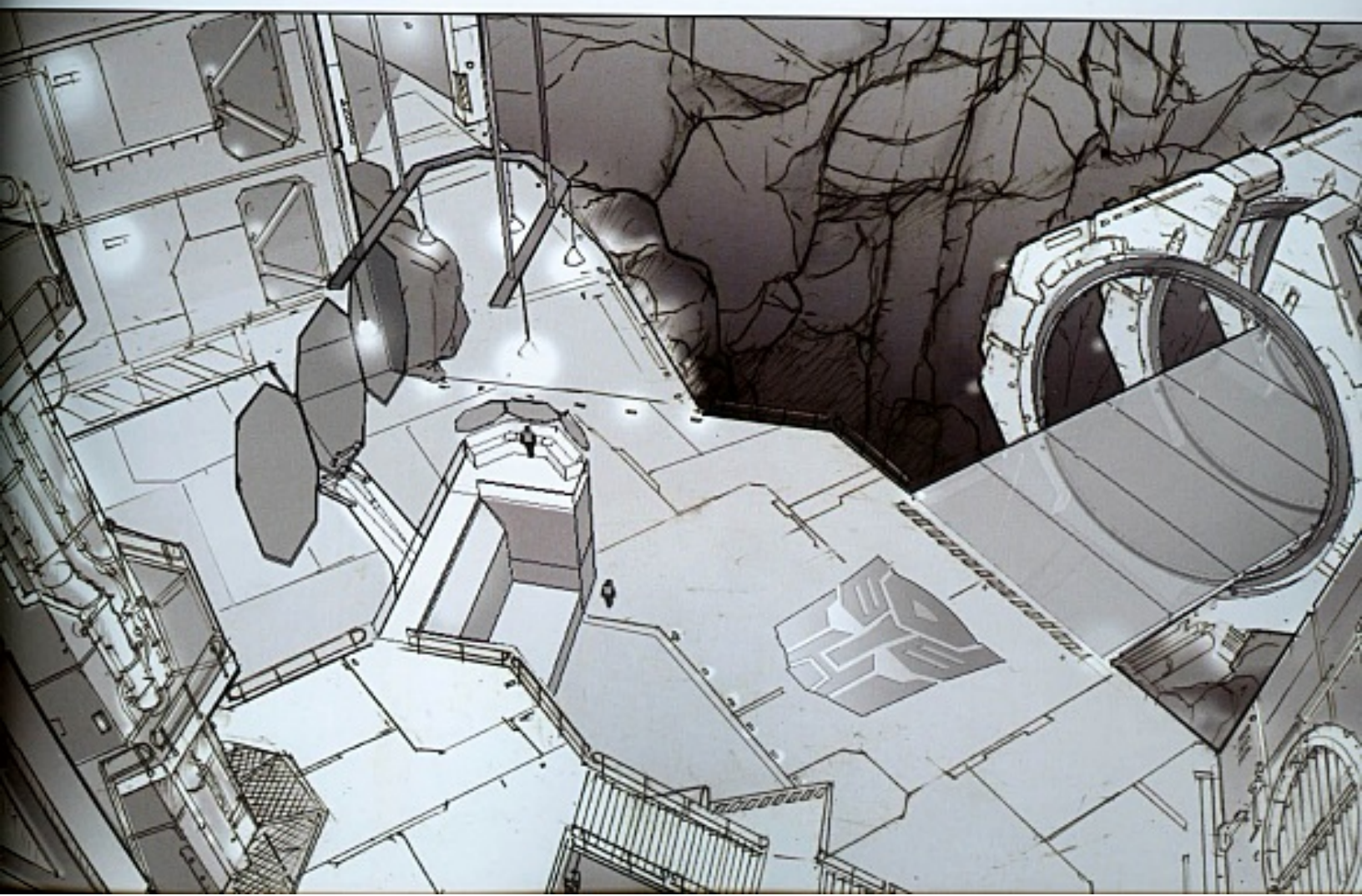
V TOYAMA '99

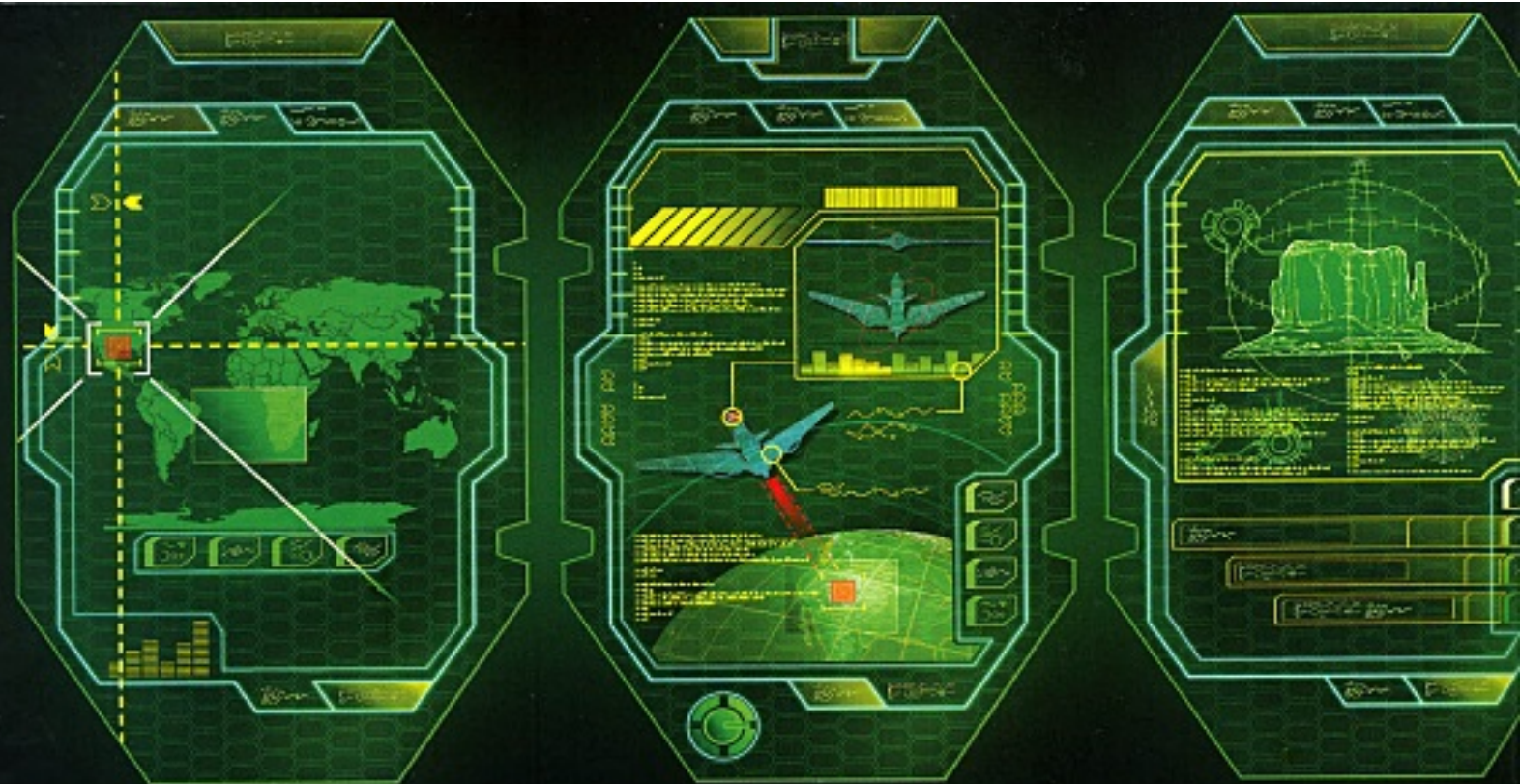
Autobot headquarters was the first set designed. Much care was taken to ensure that interesting staging was possible, and that humans could interact with Autobots at eye level.



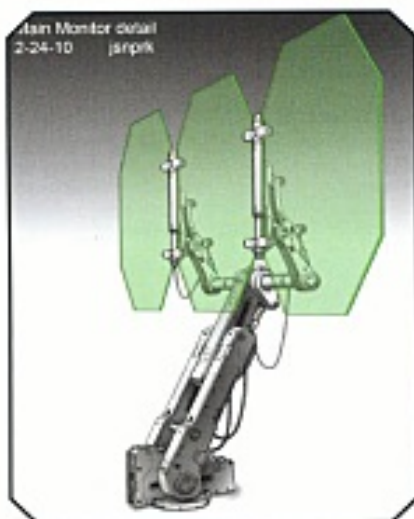


The Groundbridge provided the Autobots with the means to rapidly deploy to anywhere on Earth. Note how intricate the design is.



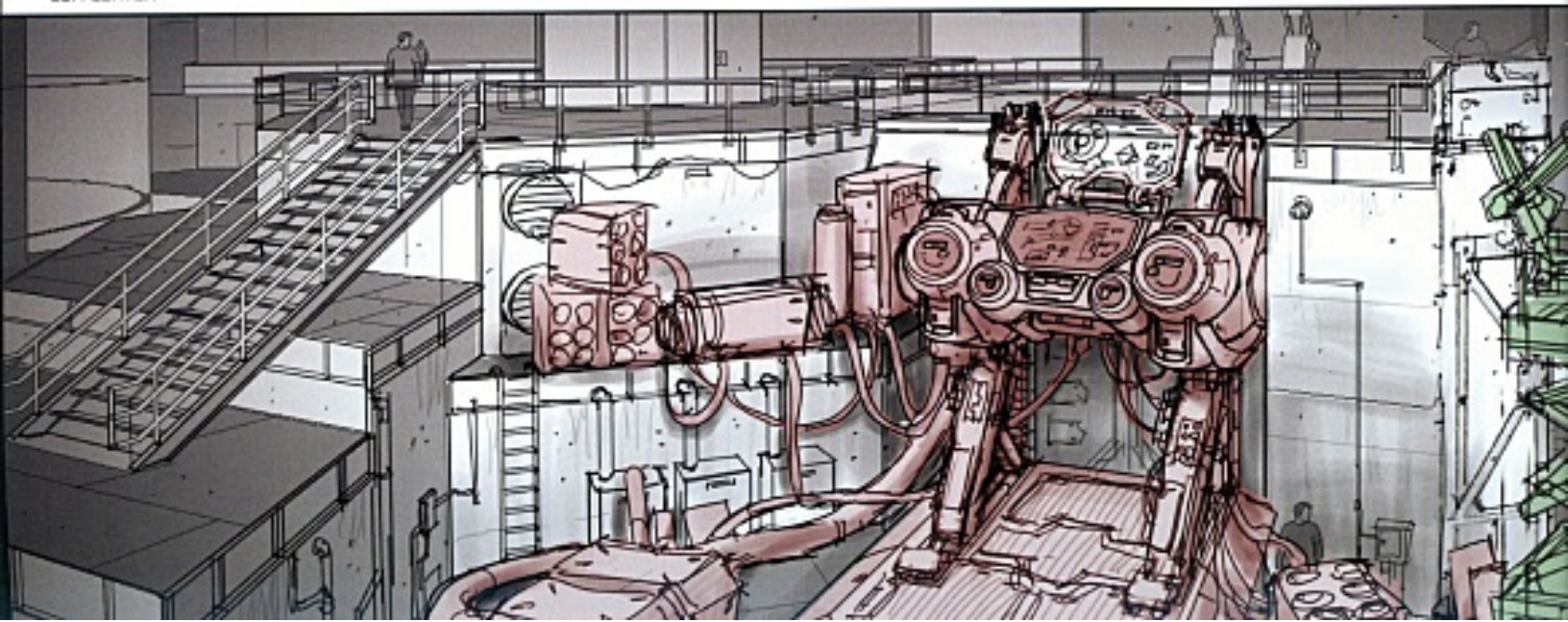
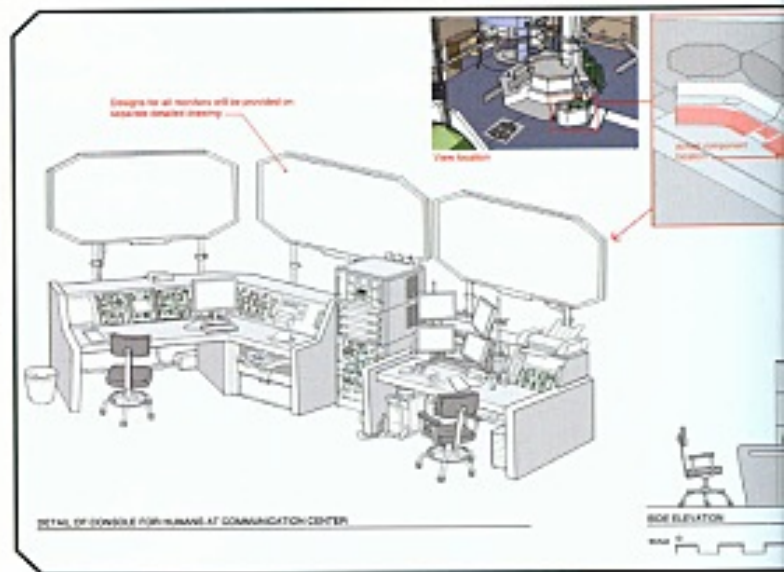


main large array



Signage and graphics are an excellent way to differentiate between different factions. Note how different Autobot computers are from Decepticon screens (page 159) and MECH monitors (page 137).

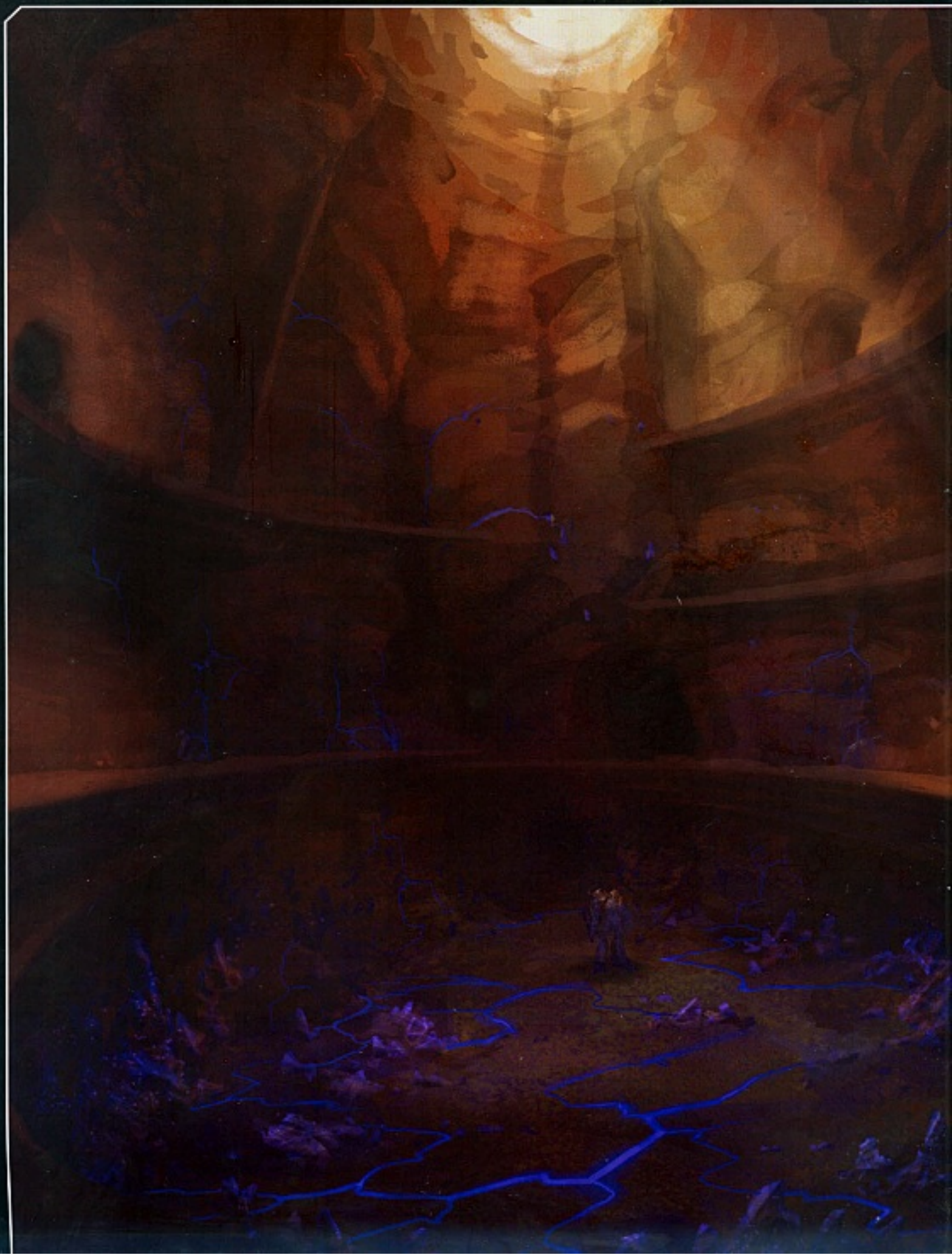
COM CENTER





The staff of *Prime* never shied away from changing the status quo. The Autobot base was destroyed at the end of Season Two, scattering the Autobots and limiting their resources.

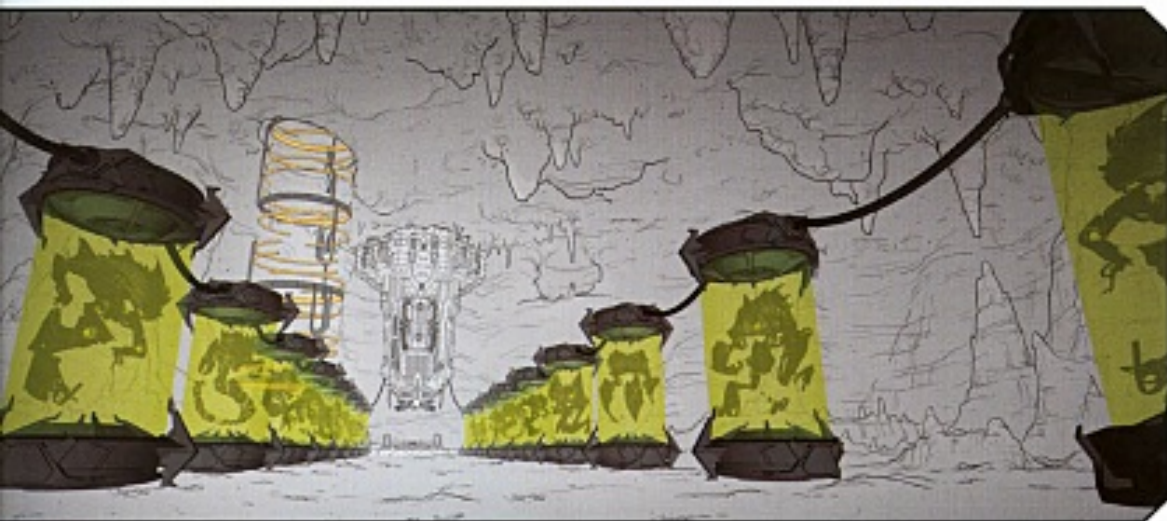






ENERGON MINE

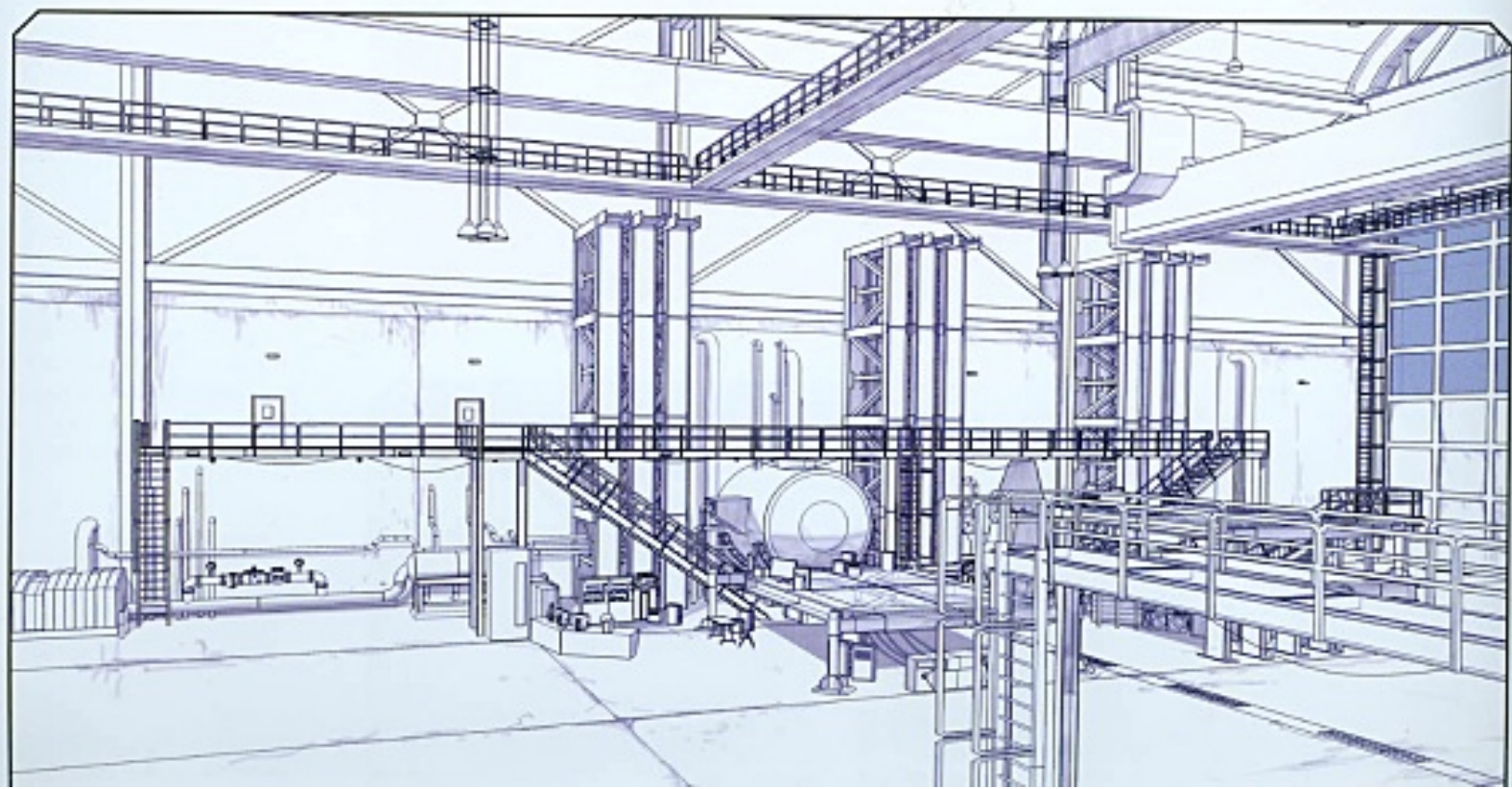
Energon mines were a frequently reused location. They would serve as Insecticon hives, science laboratories, even space bridge terminals.

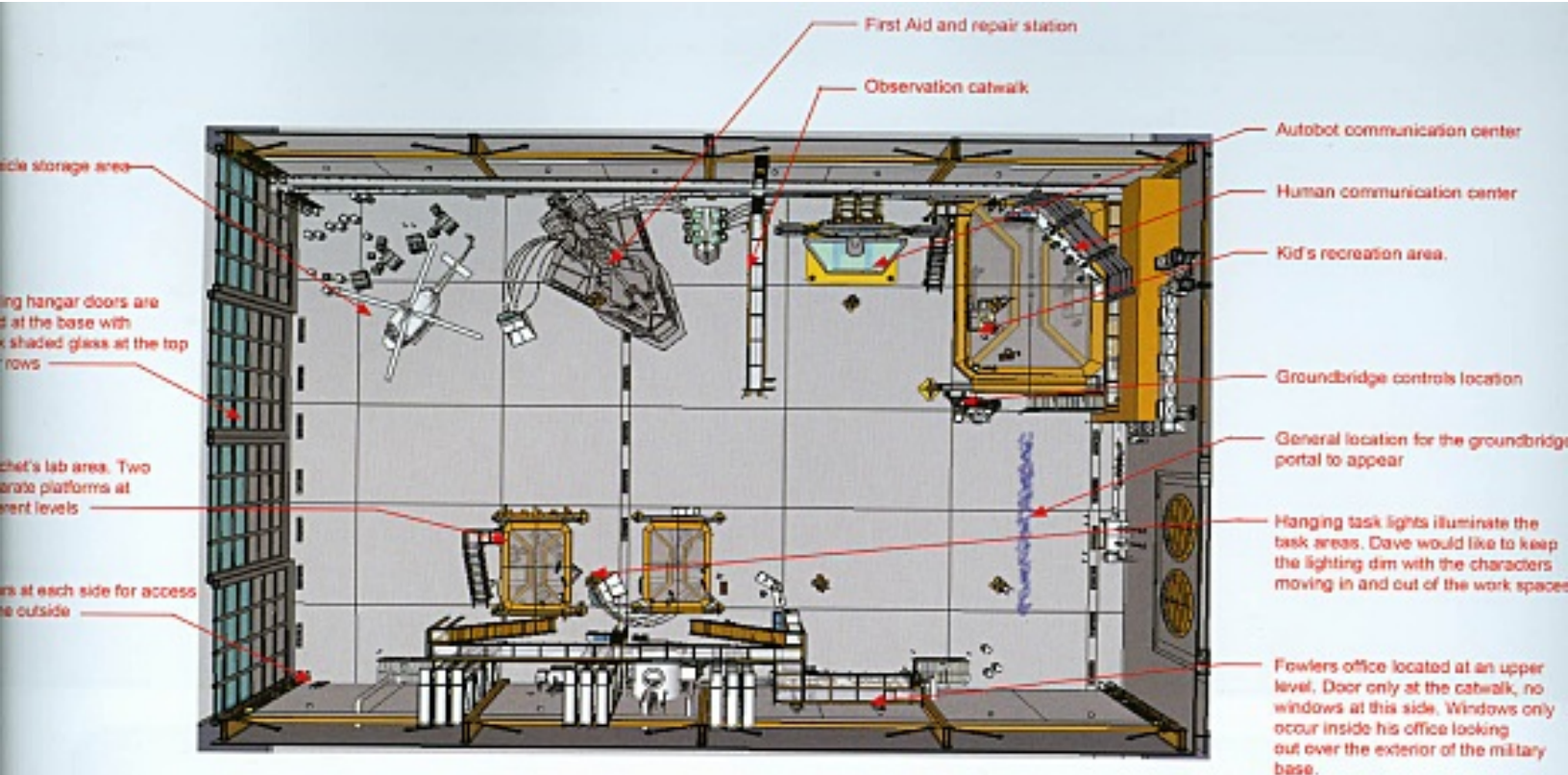




HANGAR E

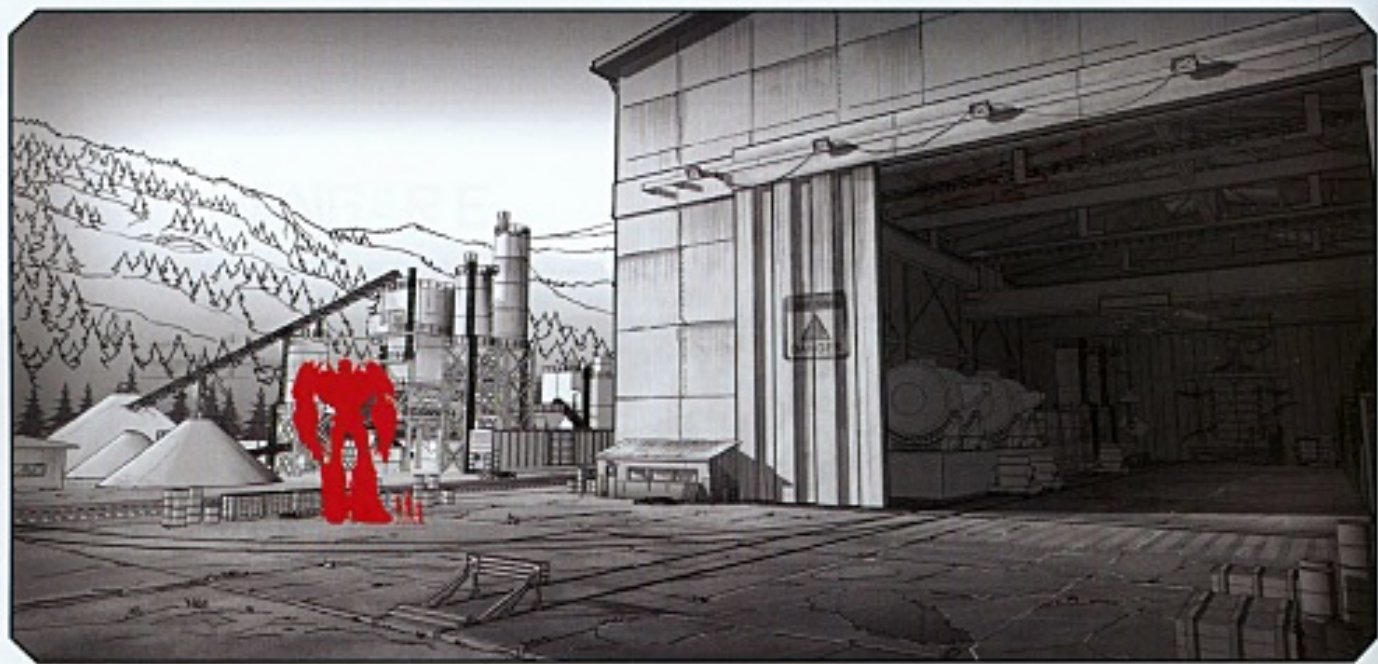
Following the destruction of Autobot Headquarters, the team relocated to a government facility and adopted the name Unit E (an in-joke for long time Hasbro fans), for the hangar they inhabited. When the Decepticons learned of the location, they attempted to destroy it but were tricked into attacking the wrong building.





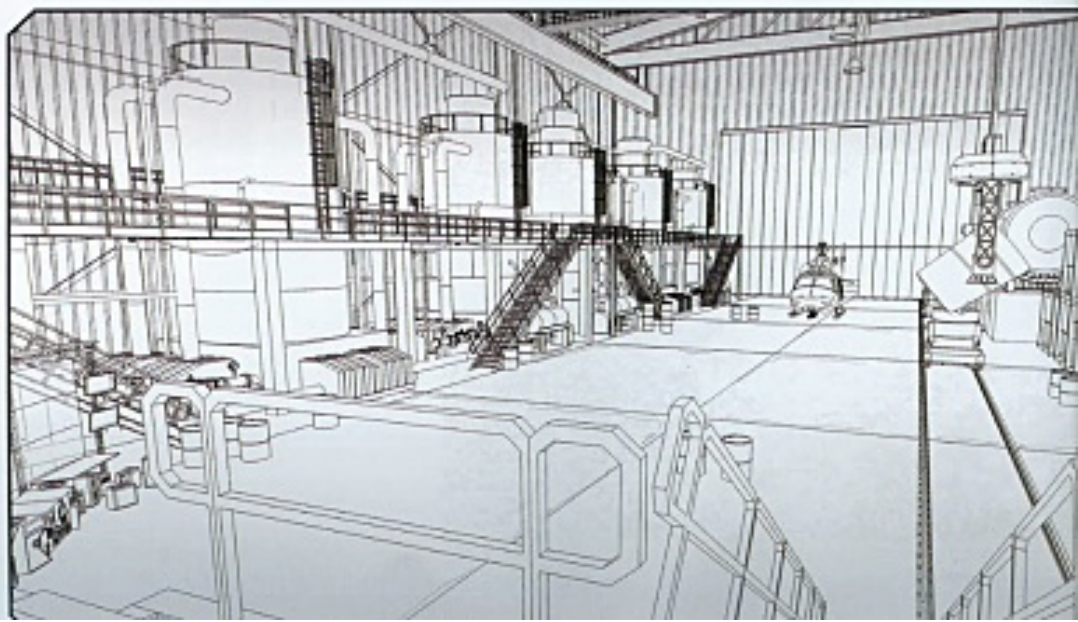
HANGAR 'E' INTERIOR AFTER OCCUPATION PLAN DIAGRAM

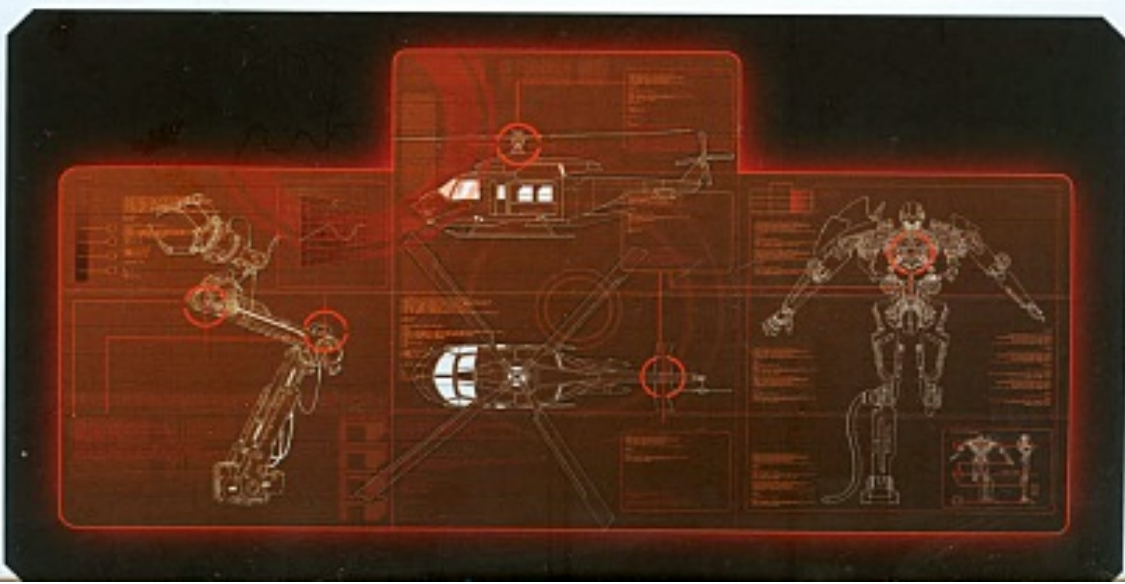
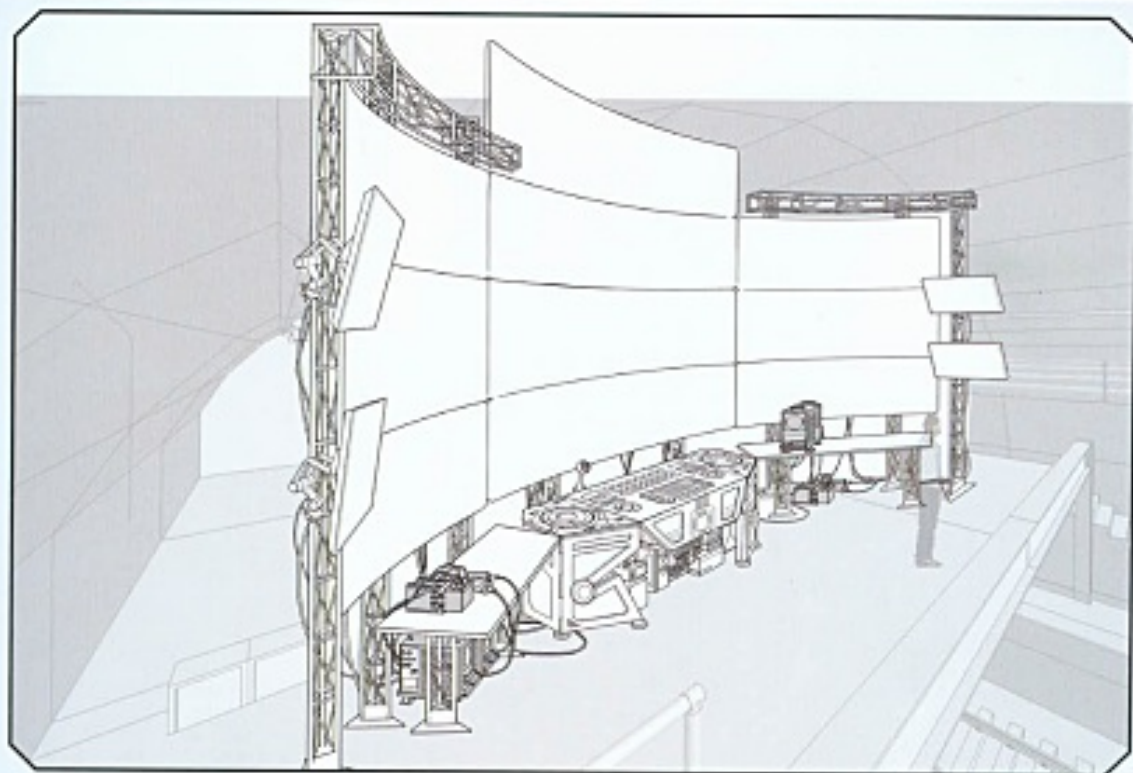




MECH BASE

MECH technology is largely human in nature, though Cybertronian influences can still be felt in the design aesthetic. This can especially be seen in the MECH computer systems. As artist Marcelo Bonifacio puts it, "We have styles of [graphics] for the good guys, styles for the bad guys, styles for the humans and styles for the humans who aren't so good and we try to separate them."





DARKMOUNT

Located in eyeshot of the former Autobot Headquarters, Darkmount represented an early attempt by the Decepticons to Cyberform Earth, eliminating all native life in the process.



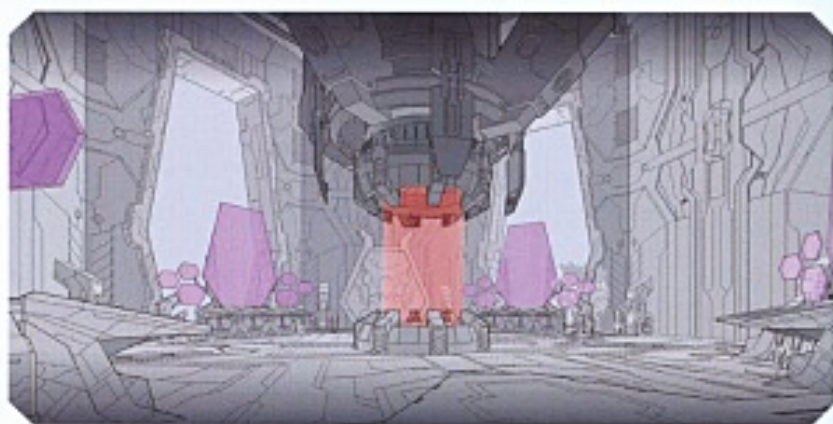


THRONE ROOM



SMELTING PIT

In the words of designer Marcel Bonifacio, "I love the big fortress, Darkmount, where Megatron sits on his throne. I was like, 'This is epic—it's going to look so good on the screen.'"







UNICRON'S CORE

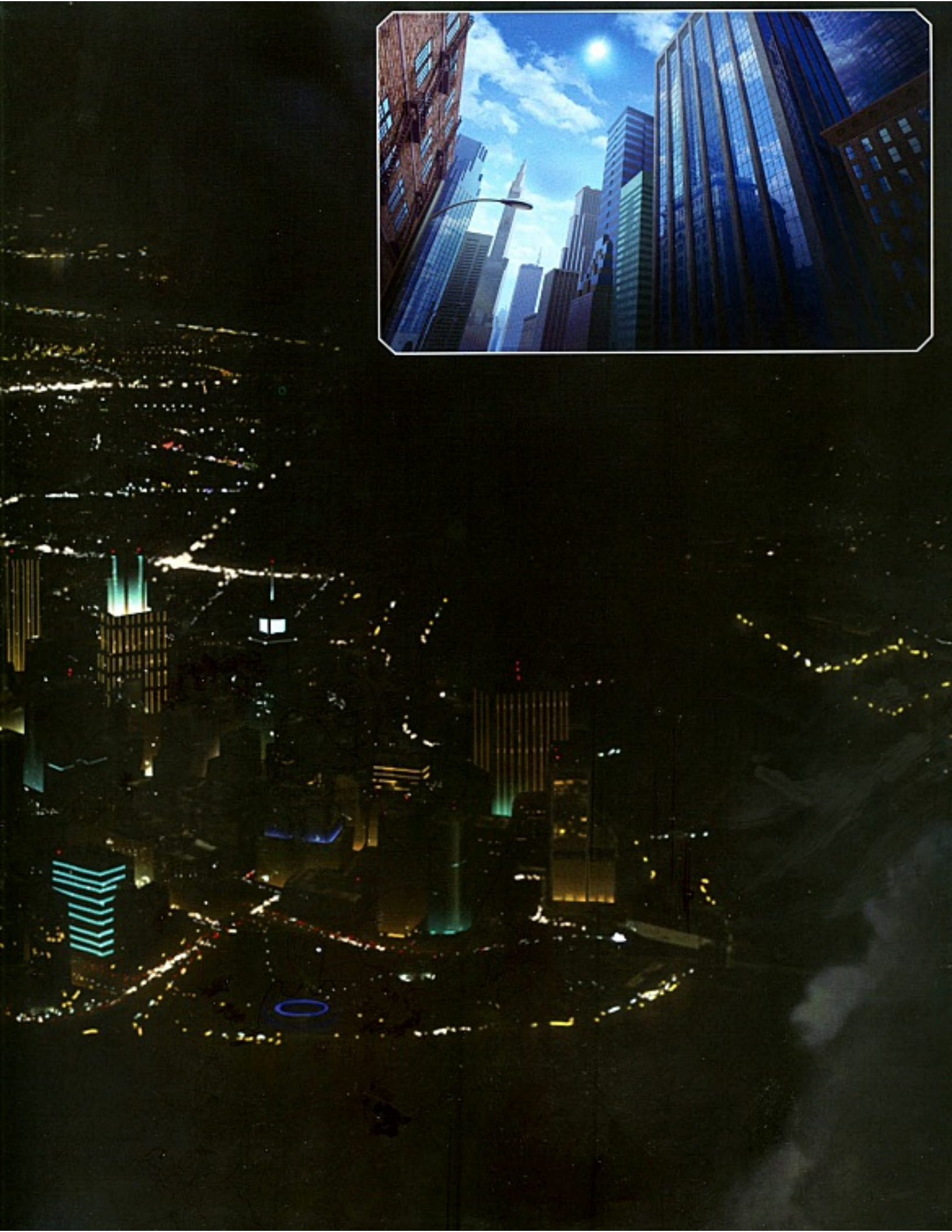
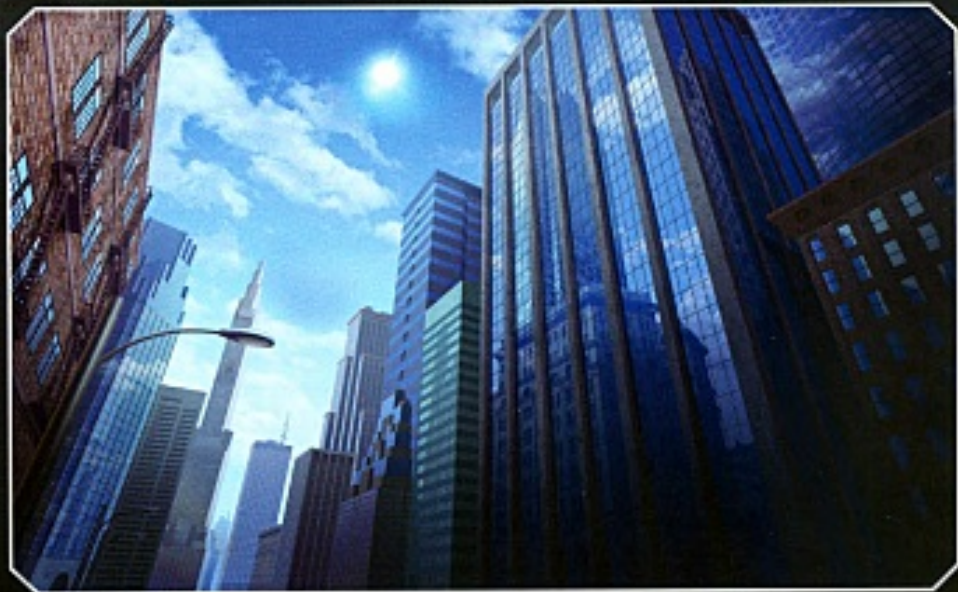
In *Prime* continuity, Unicron's essence was the core of what would eventually become the planet Earth, explaining the deposits of Dark Energon found here. When a planetary alignment roused Unicron from his slumber, Optimus and Megatron would have to join forces to journey to the Earth's core to lock the ancient god back into a state of stasis.

"When they gave me Unicron's Anti-Bots, I was taken aback. I mainly did bot and humanoid forms. But I got into it, I started playing with shapes, playing with forms, and asked 'What would Unicron have to protect himself on the inside.'" -Walter Gatus















In the tradition of earlier incarnations of Transformers fiction, *Prime* traversed the globe to find captivating environments in which our heroes could do battle. From Grecian ruins to an eruption in Kamchatka to a research station in Antarctica to the shining towers of New York, the sets are in turns lush, stark, and breathtaking. The battle for Earth truly spanned the globe.



Vince Toyama - Production Designer

Could you tell us who you are and how you got involved with this industry and specifically with Transformers?

My background is in architecture so this is kind of a second career. I'm a bit older than most of these guys here. I did get into animation—I guess '967-17 years ago, so I've been doing this a while. I started at Sony and most of the key people who started this studio were people I met back then—1996 or after that. Therese [Trujillo, Producer on *Transformers Prime*] and Jeff Kline were producers on different shows and I just kind of worked for many years on action-adventure shows. It seems animation breaks down into those kinds of genres where there's pre-school stuff and then there's the more action-adventure stuff. So I worked on *Spider-Man*, *Extreme Ghostbusters*, and *Jackie Chan Adventures*. Then I was at Warner Brothers for a year and that's when I got called by Therese and she said "Hasbro is starting a new division in animation. I'd love you to come over." I thought that sounded exciting, especially when I found out what the project was.

I think [it was because of] my background, where I've worked with Therese, and my technical background. I understood there is a very technical side to developing backgrounds because that's what I do, that's my job description.

Has that always been your job description in animation? Has it always been the backgrounds?

Yeah, Background Supervisor and then I took on a little more responsibility as Production Supervisor, although Christophe [Vacher, VFX Director] really controlled the color and the lighting. There's so much that goes on in terms of coordinating the sets, with the scripts, with the characters. Because it's a CG show and we have limited assets that are already built, trying to keep those numbers down with our production partner in Japan, Polygon, it's really important to have someone like myself to oversee that and make sure we're running efficient sets and that we are being economical with the existing assets and then designing sets that would accommodate the actual characters at different scales. We're really virtually designing the live action sets for this virtual reality.

What exactly does a background designer do and how is it different for a cell-based show vs. a CG show?

We start by using SketchUp. It's free, it's a free software and it helped us enormously at the very outset because there's only a handful of us and always with any development project in animation that's always the hardest part of the production, generating all this artwork and things aren't getting approved and when it comes to the sets, because scale is such an issue—we have human sized characters and then the large robots, [the Autobot headquarters] is a good example of a set that would contain all those conditions. It was also important that we didn't create just a flat football field of a set, but create a set that gave us different levels and different opportunities for the humans to actually be at eye-level and speak. [Autobot headquarters] was the very first thing that I did for this

show and using SketchUp gave us a really quick idea of the overall sense of the space. Everything is built to scale—you could actually measure things off this—it's a very architectural set piece. The great feature about this is that it lets us scan in Jose's characters and then scale them at the right size and then create this little model that helps everybody get an idea for the scale.

Once that's approved we will have different levels of design. [SketchUp] is really the very first level. It's very rough and we can get a sense of the space. Then, when the overall concept is approved, I'll go in and do some sketches over that to establish space and get some values. It's pretty rough but it gives everybody a sense of the next level beyond the SketchUp model—it gives them an idea of what I have in mind.

Once that's approved we keep taking it to different levels, keeping in mind all this information has to be sent over and someone has to build it. This is a good foundation and once we have something like this we'll do additional rough drawings—like a more detailed design of the Ground Bridge. You get a sense for the overall design. And then Christophe will do his pass and so there's more than just this technical drawing.

Even the monitors themselves were a big part of the backgrounds. We'll go in and we'll take the monitors and create pretty elaborate designs for the different [monitors]. That was an important part of the backgrounds. We were always going to have monitors and we always wanted them to be active and give life to the set. It kills that static feeling that it can have. So much of the set happens in the headquarters and a lot of story points involve interacting with the sets on the Nemesis or human bases so we came up with different color schemes.

Speaking of monitors, are there any challenges around Cybertronian signage?

Jeff was a big stickler about not having any signage and there was a big fight just to get signage on Earth [embedded signage tends to be in English, but *Transformers* airs worldwide]. The first time we did that I just made some stuff up based on crop circles. There were some circular shapes. That was more for the formulas—when Miko was trying to photograph the formula. Eventually this was more a product of Marcelo [Bonifacio].

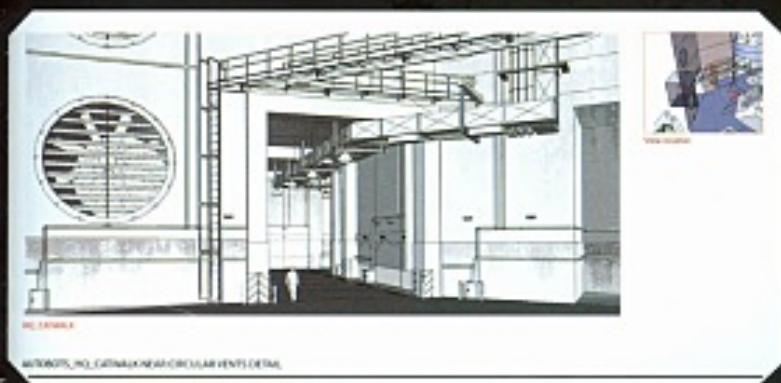
Does Polygon use SketchUp as well?

They have SketchUp over there as well but.... I'll come back to that... Polygon would actually take these models and add their texture and color based on what Christophe did. On the first pass [of Autobot headquarters] there weren't a lot of surprises, visually, because everything was visualized pretty completely in the SketchUp model and the sketches. The only thing we had to adjust was some of the lighting and the color. I remember we ended up thinking that these handrails didn't read—they kind of got lost so they ended up being painted yellow.

But after we got back the first lighting pass it made us realize, "Wow, we really do have a cool looking show." Polygon is one of, I think, the best studios that does TV animation. We send them the sketches, the SketchUp model. Originally the SketchUp model was just an internal tool that we'd use to visualize the space but then, as we'd start sending the things to Polygon, as we went through the production process the board artists started to use the SketchUp model to choose camera angles because they realized we can't cheat as much as we can normally in the 2D shows.

What do you mean by cheat?

Sometimes they'll place a camera outside the space and we just can't do that. We can't remove walls. Or the board artists will rough in more than is actually capable within the camera angle so either you change the



NO CAMERA

AUTOBOT HQ, CYBERTRONIAN CIRCULAR VENTS DETAIL

CONCEPT ART BY VINCE TOYAMA



KRON CITY

camera angle or you can't get it at all. Once you have the SketchUp model you can actually go in and place a character in a set and place the camera anywhere. [Jack] is five foot six and you can see everything he can see from that space. So the board artist would do that and say "Oh I have exactly that much within my camera space or within the camera field of focus." But if you look at this it's a 45 degree cone of vision so that's maybe a little bit too narrow so you might say "Ok, we'll change that to 60," and it'll work out. That'll give you a little wider angle—you can see things start to distort.

The board artists used this quite a bit and once things got over to Polygon they realized, "Well, this saves us a lot of time too because we know exactly what the setup's going to be and we'll just take these camera angles in effect." They told us "Please have the board artists use the SketchUp models if they're being used at all because it really helps us in the production pipeline as well."

Can you talk about what the production pipeline is? A story starts, with a

script and gets approved—then what happens, with particular reference to you and your team?

We'll have a couple of design meetings. We used to meet with Dave [Hartman], the Supervising Director and Duane [Capizzi], who was head of writing and we'd all come to the table and kind of discuss the script in general and all the design needs and what Duane's vision was and what Dave had in mind in terms of the basic set design. And then I'll go away and I'll do my sketches and then we'll have a secondary meeting. And then, usually, the designs are approved or not we'll have notes and they'll come back. Usually we don't have a meeting to go over all those notes, usually it's just kind of a one on one process where I'll email Dave those notes and he'll approve them and they'll be passed onto the board artists at that point.

You were speaking early about the limited number of assets you could use

do you try to make sets you could reuse? What makes a set something you can reuse? Do you make a new mine each time or is it the same mine and can you make tweaks?

Yeah, we use the mines a lot and that's the thing. The big joke is that we're always in the desert or we're always in a mine. We got that a lot in the second season because I think Polygon realized how expensive it was to try to keep pace with what we established in the first season and they said "Hey, we have a library of stuff now, let's start being smarter." So, yeah, when it came to the mine interiors we left it up to Polygon and said "Whatever you've got up there, then use." But when it came to the exterior locations, when you've actually got human built environments that are a little more distinguishable you had to be really careful about how to reuse things so viewers didn't say "Hey that's from Show 117—that's the cement factory." That kind of thing. But we use that a lot actually.

For example, in a set from show 307 we're reusing the cement factory from show 117 and reusing the trains and train tracks from 111. I think the only new thing was the arrangement, really. We'd indicate where there's going to be matt paintings and advise the director and board artist where to concentrate all of the staging so that everything else can fall away and be a matt painting. It became a logistical challenge because we'd ask "Ok, what set can we reuse, and when did we reuse it last? We just used it two episodes ago, that's too soon." So we had this crazy chart.

Is there a spreadsheet somewhere with this kind of information?

I made up my own and kept track of that myself but that was tough. It was frustrating too because you always want to do something fresh, but you have to understand, it's TV, you definitely have limitations.

Despite those limitations I understand you won an Emmy for your work on the show?

Yeah, that was crazy. We've won seven over all. The first year we were out I won an Emmy and Christophe won an Emmy. That was my first and only and I was really flattered but I think I've always said that I've never worked harder on a production and I think it shows in the show. I think the success of the show isn't just getting a lot of talented guys together. We had a unique benefit when Jeff and Therese were chosen to put together a studio. They contacted Jose, Dave and myself first of all and our goal at first was just to hire people we got along with. There's a lot of talented people out there, in animation but there's a lot of Prima donnas out there as well that you just want to avoid and I think the success was getting a team together that really worked well together and getting a really good partner overseas that we had worked with before. Dave and Jeff had worked with Polygon before when they were at Disney so they had a really good relationship as well.

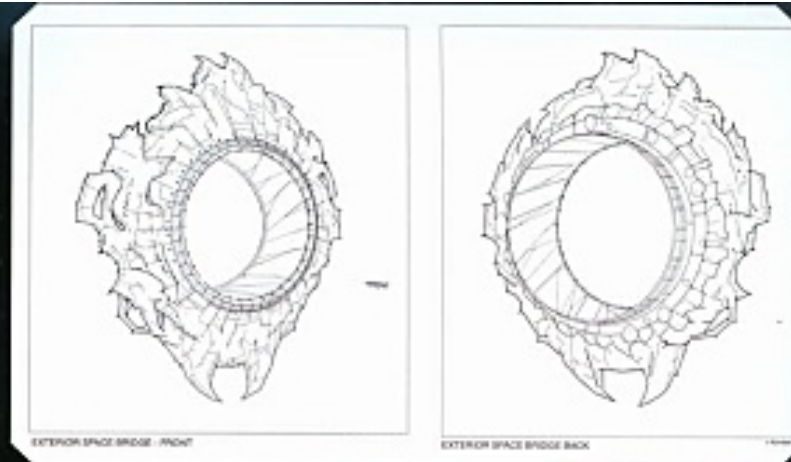
But yeah, when Christophe and I won the Emmy it was a real honor because it was a brand new studio, a brand new production—it had only been on a few months and being recognized as... - there's a different category within the Emmys that's individual achievements and they are voted on by your peers and that in itself was satisfying knowing that your peers recognized you.

It's hard to imagine higher praise.

In this industry, that's really the highest, and we were very—I hate to say lucky because it's a lot of hard working that goes behind it and I think we've been recognized for all that effort.

And I believe Jason Park also won an Emmy for background design?

Yes he did—he was part of the team from the very beginning and he won for Show 203. He designed the main, most important sets within that particular show. He's very proficient with SketchUp and the designs that he came up with were fabulous. I would just guide him in terms of staging. At that point my input is just providing Jason with all the rough designs



SPACEBRIDGE DESIGN

and concepts and the notes from the design meetings and then guiding him through that and making critiques on basic composition and basic shapes but it's all him—he really deserved that.

So who is on the team and what are their responsibilities or does everyone sort of do the same thing?

The way it broke down, everyone technically should be doing the same thing but I kind of scrambled to find the team that worked best for me and I think the way it worked out was that everyone has their own strengths—everyone should be able to do everything but I think that when it came to the signage, and the monitors, Marcelo was someone who really excelled at that. But then he did design the fortress at the end of the second season as well, so I think overall everyone kind of does the same thing.

One of the interesting parts of the show is all the different environments you have. Is it difficult to make the different environments have a unique feel but still feel like part of the same universe?

It is. I think, when it comes to the Earth-based environments, the natural, organic Earth-based environments, we tried to create environments that felt as realistic as possible. That's where Devon [Bue] who is on the team really excels. He's such an amazing artist when it comes to delineating organic environments. That definitely was his strength.

When it came to the Decepticon environments I think Marcelo and Jason were really strong at that. We got into designing a lot with SketchUp but there's a certain language that we key off of the characters as well. Things are very angular. We pushed the Nemesis in that direction. Some of the Cybertronian environments had their own language as well because I felt it was a little separate from the Decepticons so the world—the planet itself—had more rounded and circular shapes and because it's approached like a machine world it was like a large engine. I think the [Darkmount] tower itself exemplifies that kind of design language.

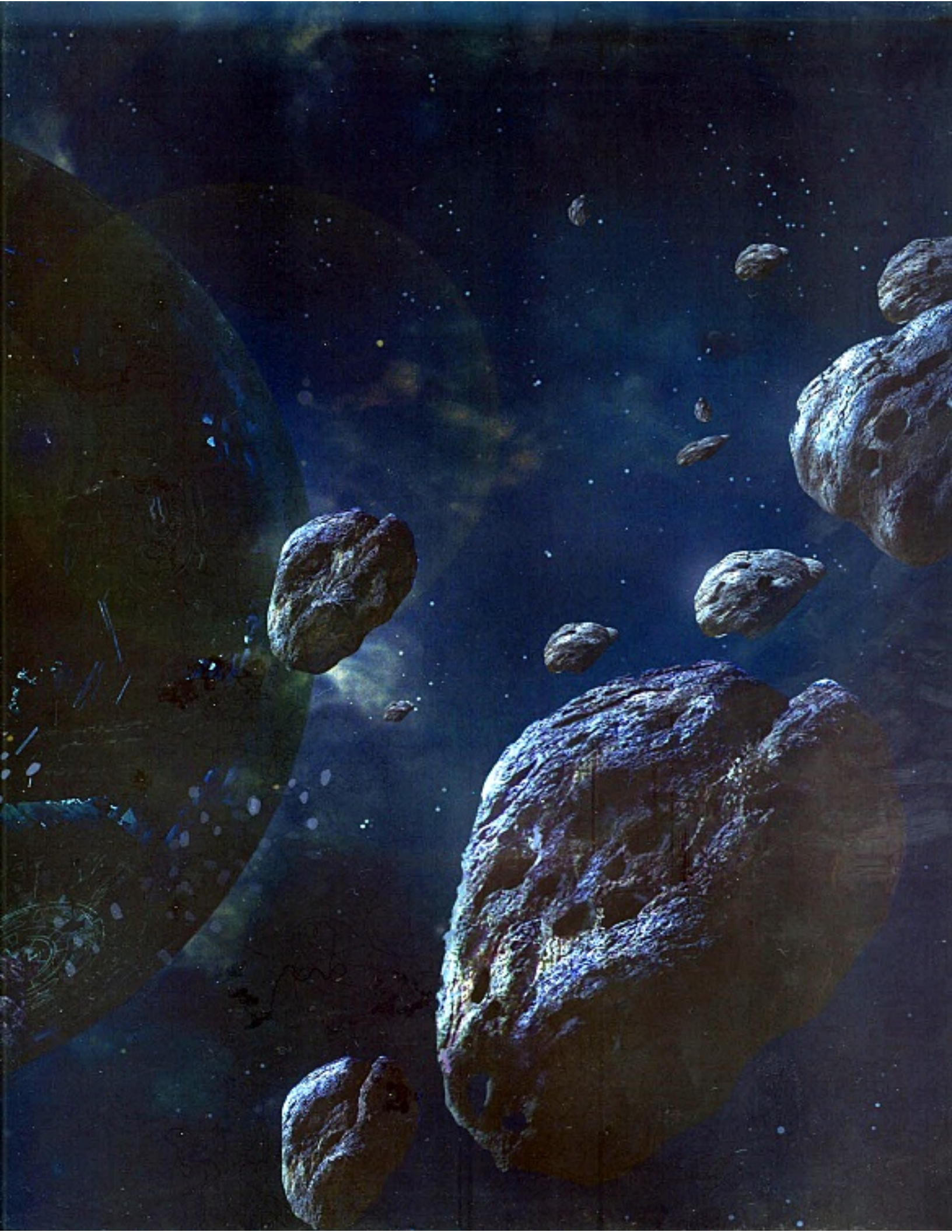
Did you look at what previous Transformers television series, movies, comics had done when designing Cybertron or did you come up with your own idiom?

I did look at that. There was kind of a fine line where we were told to be very careful not to borrow too much from the Michael Bay universe. It was important to create a different world, separate from that. There's also legal issues. At the same time Hasbro Brand encouraged a consistency. We didn't want to deviate so far that everything looked radically different from what's come before. Some of the videogames—the *War For Cybertron*—we looked at and that helped me get a good feel for what's come before us but I just wanted to create a world that was a little bit more TV animation friendly. I knew we'd have to rely a little more on matt paintings and stuff because it's such a complex set itself that we tried to streamline it a little bit but we definitely referenced early versions.

CHAPTER FIVE

CYBERTRONIAN LOCALES

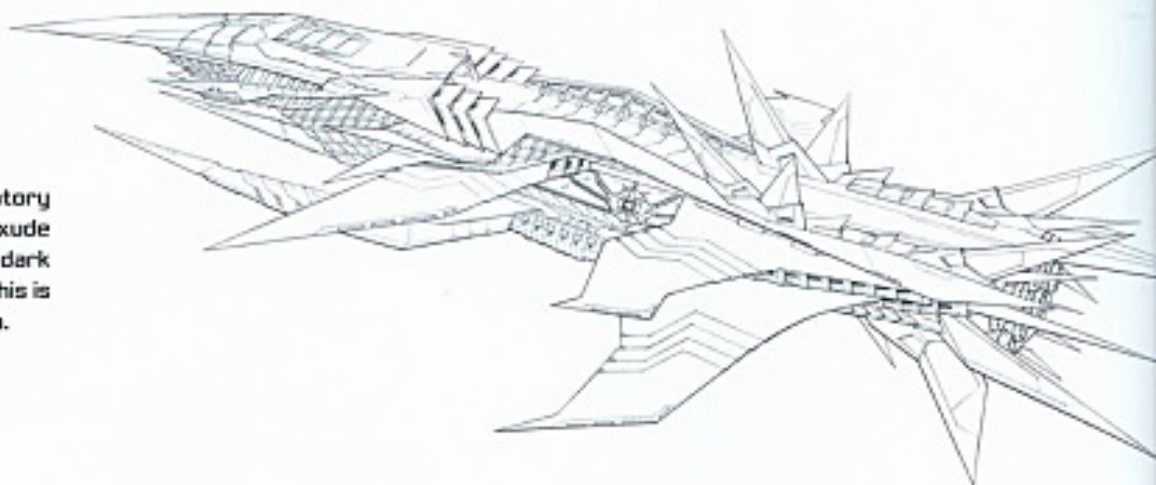




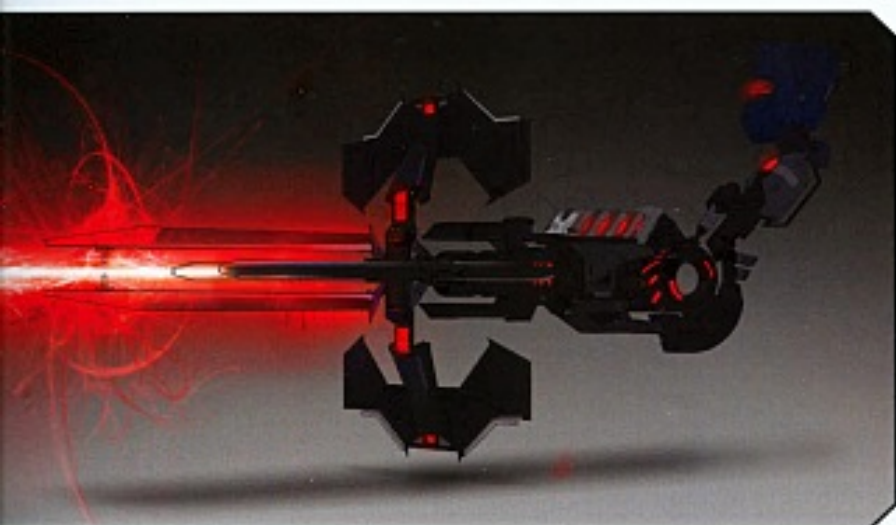


THE NEMESIS

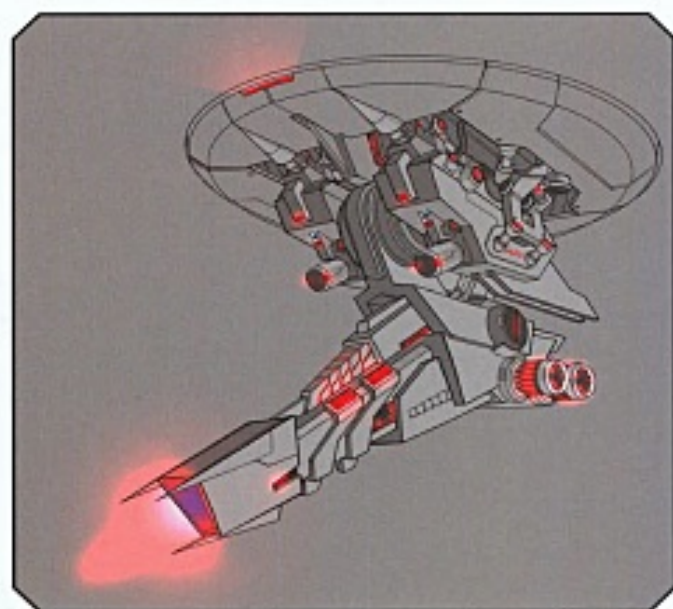
With its jagged spires and predatory silhouette, the Nemesis seems to exude danger. The ominous purple glow of dark energon haunts its corridors. Truly, this is a ship worthy of Megatron's ambition.

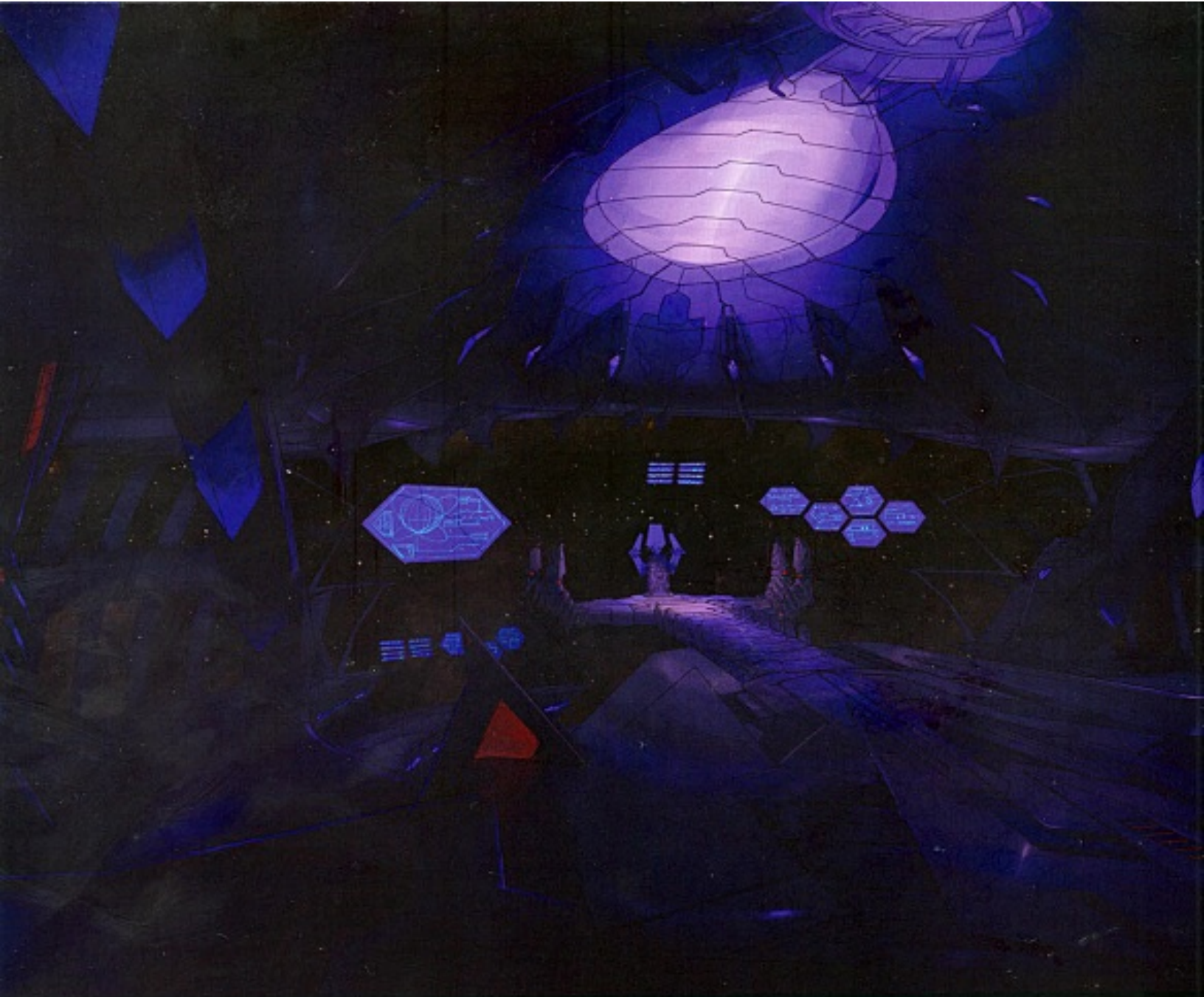


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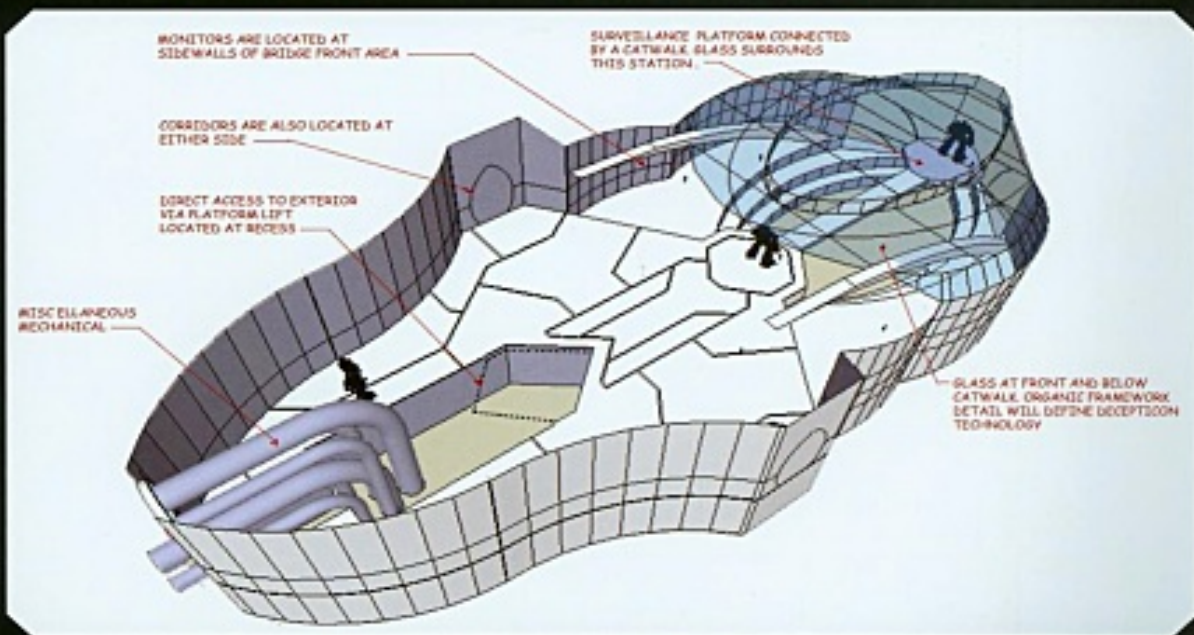


NEMESIS EXTERNAL WEAPONRY





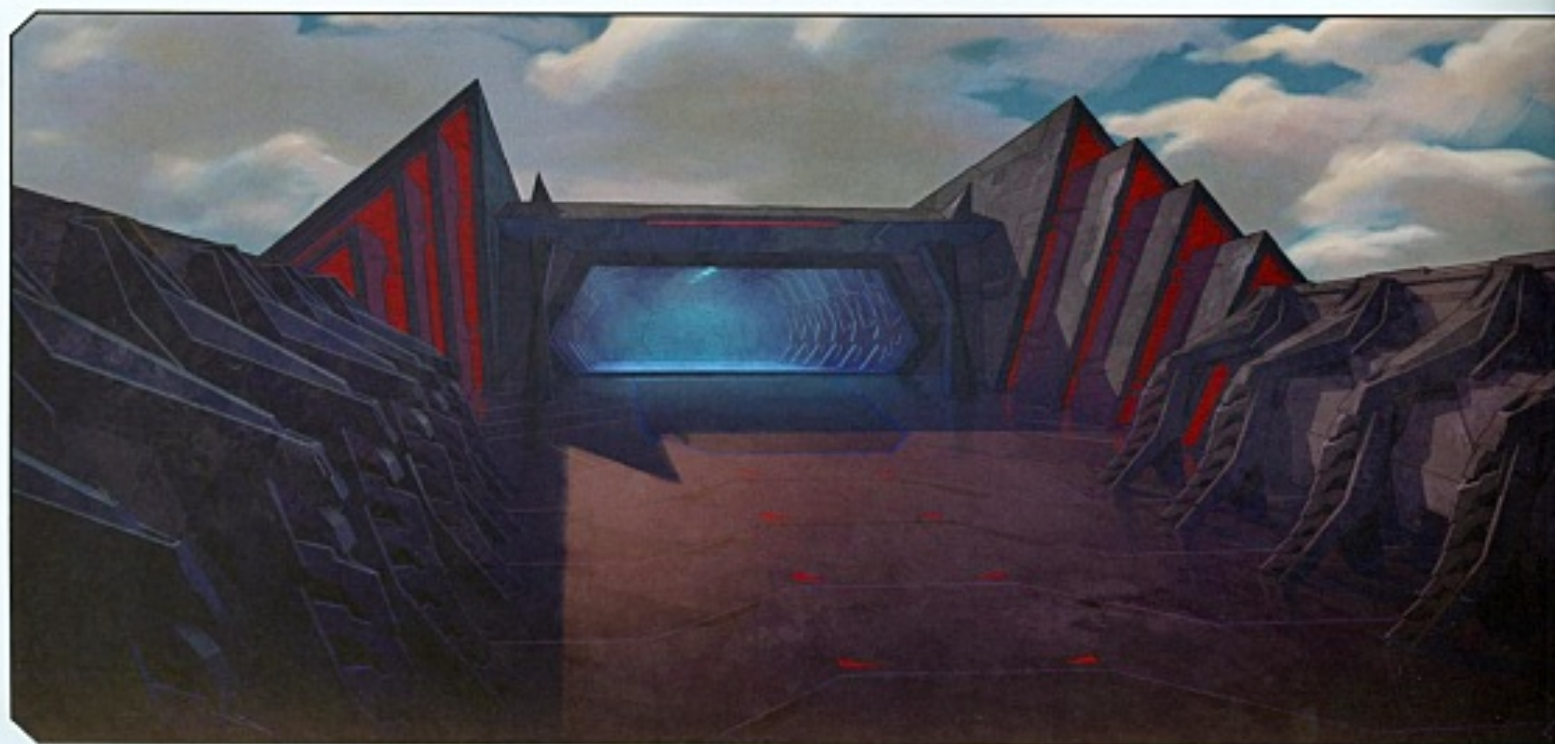
With its sweeping views and enormous scale, the bridge of this mighty leviathan truly feels like a center of power. Looking at the controls, one can almost sympathize with Starscream's ambition to one day rule the Decepticons.



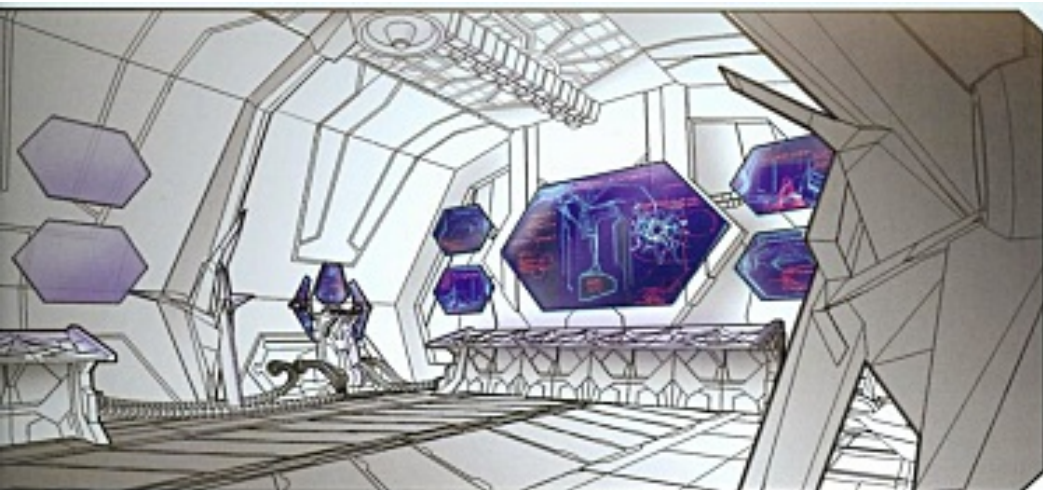


NEMESIS LABORATORY

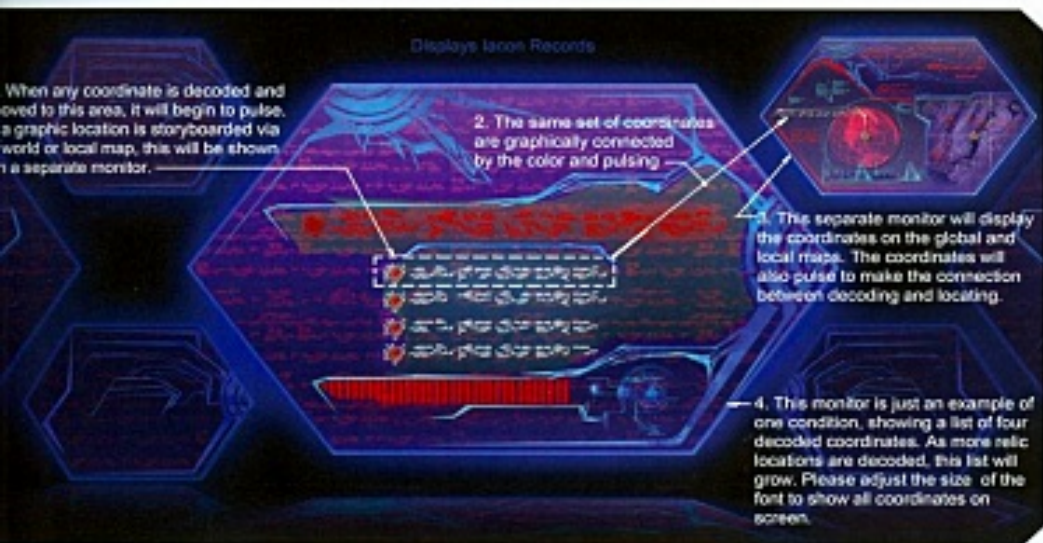
Several important plotlines revolve around the Nemesis lab. Not only does Megatron spend much of season one in stasis here, but in the final episodes of season three Ratchet must attempt to balance his duty to Cybertron with his duty to Earth.



EXTERNAL HANGAR DOOR



NEMESIS DATACORE



NEMESIS GRAPHICS

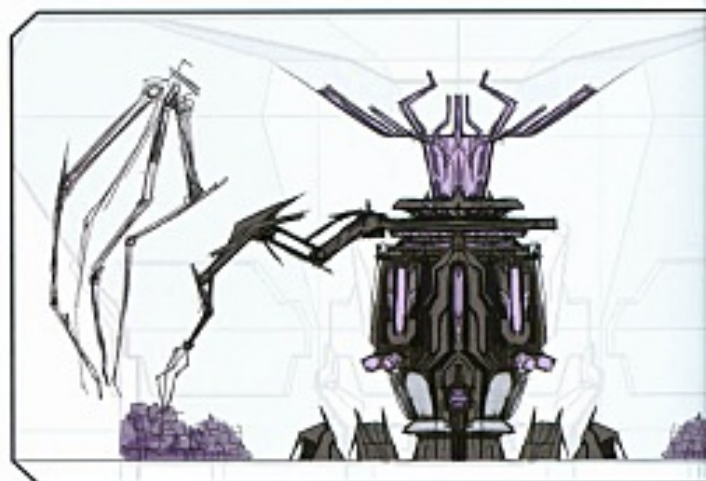
Season Two of *Prime* revolved around the decoding of the Iacon Archives to search for ancient artifacts. From the Decepticon Datacore did Soundwave (and, for a time, a wayward Orion Pax) attempt to locate these relics. When the Decepticons successfully acquired one, it generally wound up in their vaults. In the picture below, from left to right: the Star Saber, Airachnid in stasis pod, Polarity Gauntlet, Apex Relic, the Immobilizer, and The Forge of Solus Prime.

NEMESIS VAULT





When the ship's power core gets infused with Dark Energon in Season Two's "Flying Mind," the ship comes to life and attempts to take charge of its own destiny, much to Megatron's chagrin. Fans of the *Fall of Cybertron* game or the novel *Exodus* probably found the idea of the Nemesis as a sentient being less surprising, as the ship is the alternate mode of the gargantuan Decepticon Trypticon stuck in permanent stasis lock.



NEMESIS POWER CORE





AN OMEGA LOCK CHAMBER

The final story arc of Season Three revolved around the construction of a new Omega Lock onboard the *Nemesis*. Once the Autobots took control of the ship, they used it to revitalize Cybertron. Later, in the *Predacons Rising* movie, the Autobots sacrificed the ship in their attempt to thwart Unicron.

NEMESIS CRASHED BY THE SEA OF RUST



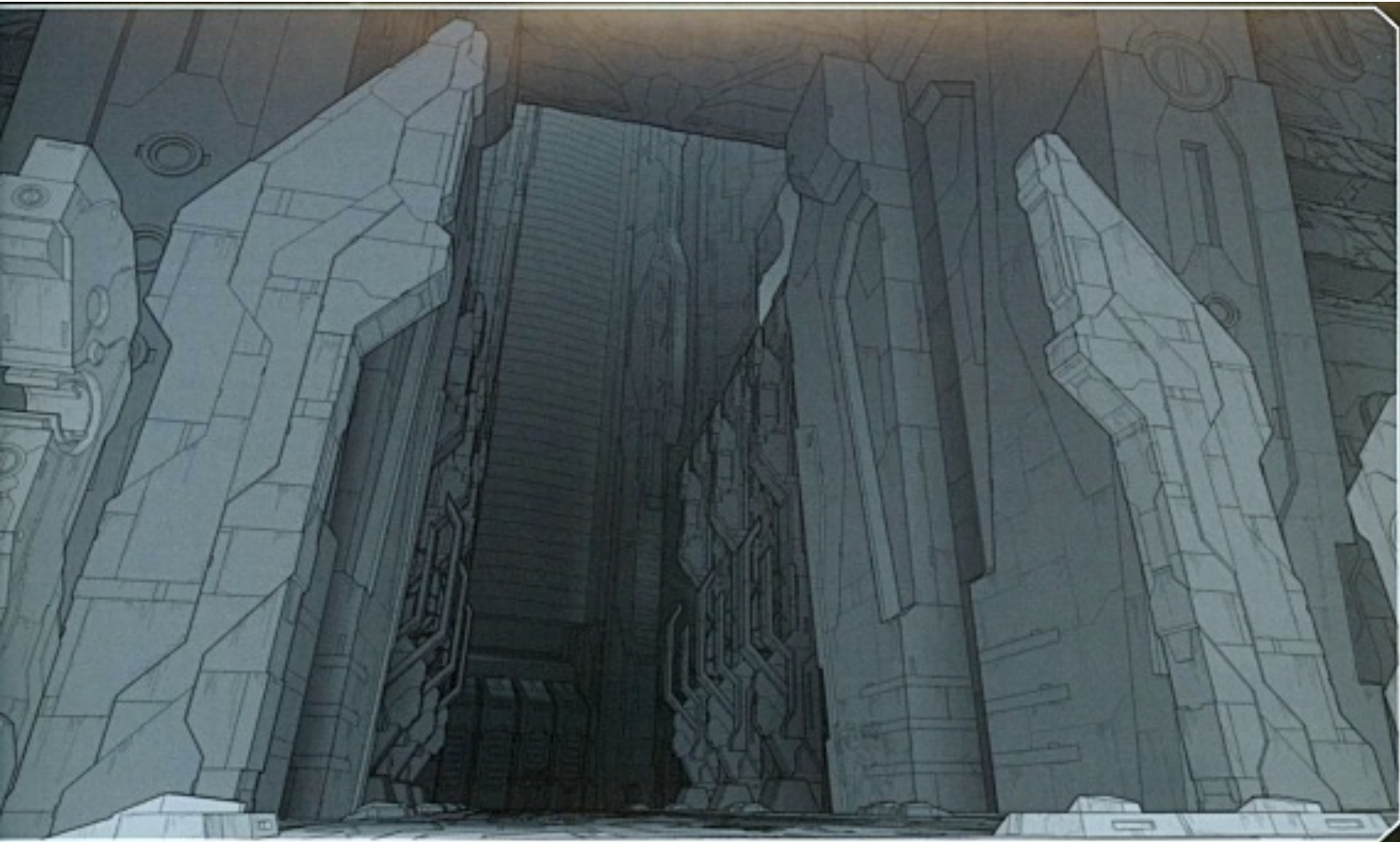


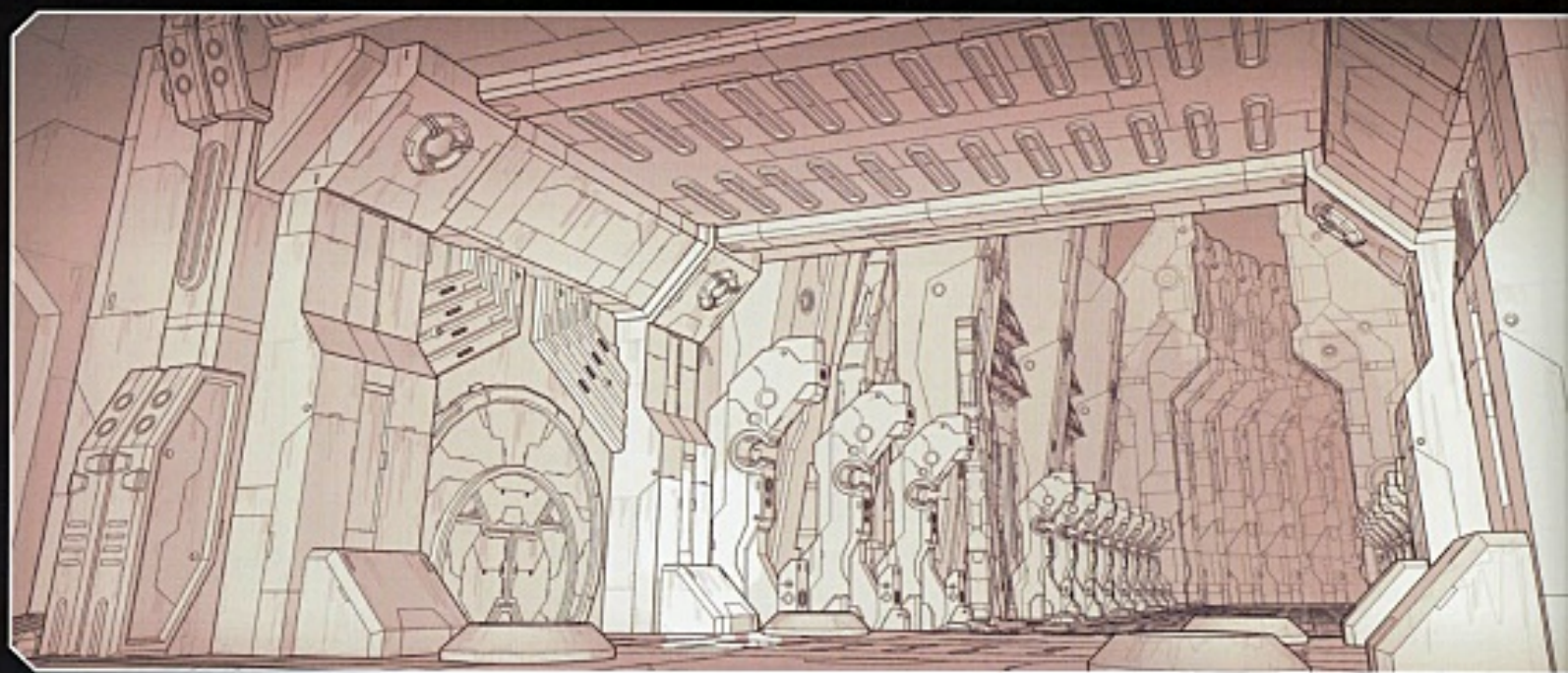
THE MIDEITY C



THE PLANET CYBERTRON

Aside from Earth, no planet plays a larger role in Transformers mythology than does Cybertron. Other than flashbacks to Iacon (left), the bulk of the scenes set on Cybertron in *Prime* take place in the region known as Kaon. An industrial city-state, it seems claustrophobic and foreboding despite its enormous size.





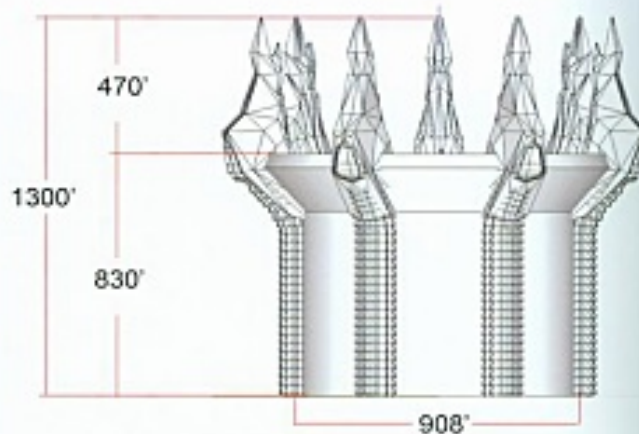


Megatron honed his combat prowess in the gladiatorial arenas of Kaon. Note the dangerous, almost organic quality to the enormous beast he has slain.





Megatron's Demented View of the Fortress





Kolkular is the fortress at Kaon's heart, and the site of a mental battle between Bumblebee and Megatron when the former attempts to invade the mind of the latter. Note the nightmarish quality to the design.





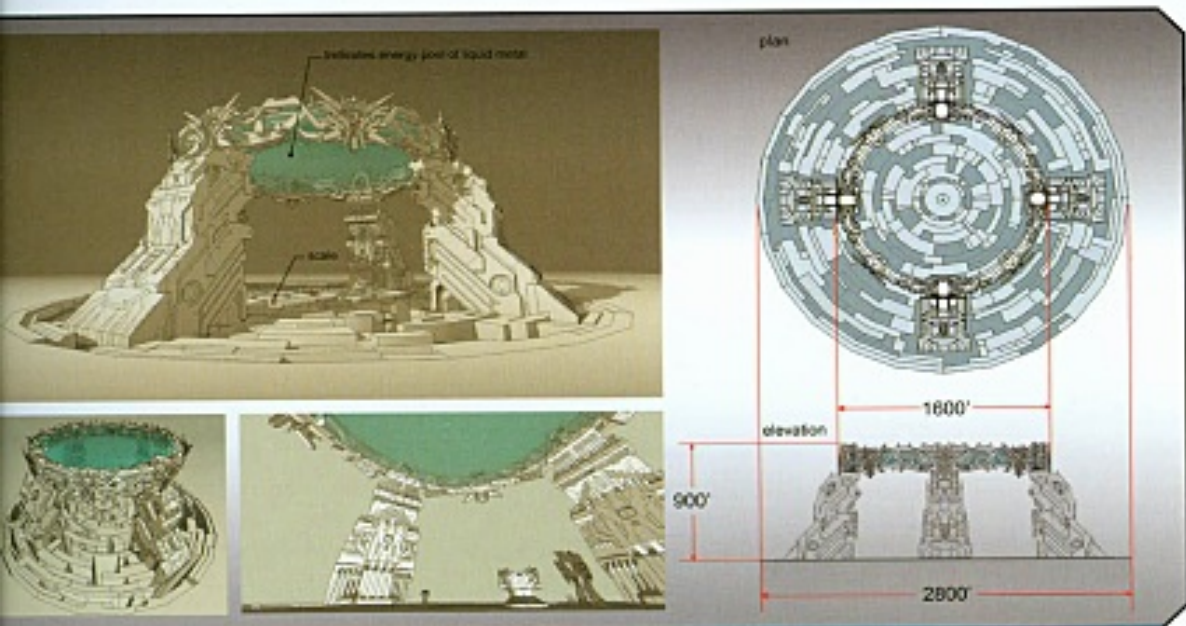
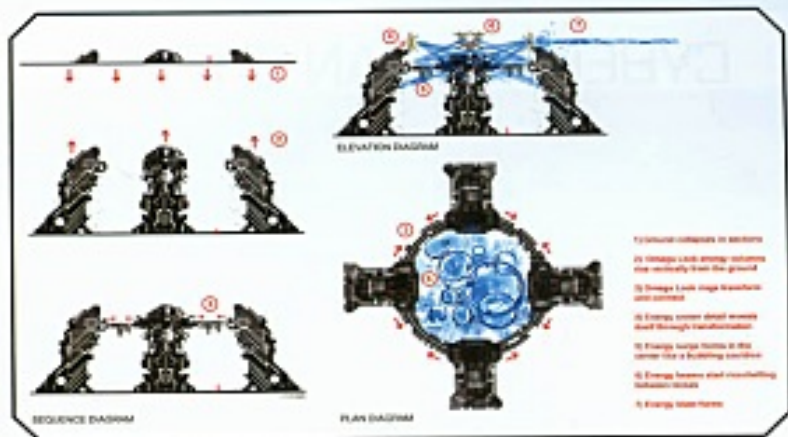
VECTOR SIGMA ENTRANCE

Little did Megatron realize that the mystic artifact Vector Sigma lay beneath his feet. This design won designer Jason Park an Emmy, and it's easy to see why. He looked to Generation One for inspiration. In his own words, "I remember seeing that episode as a kid and being pretty enthralled that that was somehow how it gives these guys personalities. We referred back a lot to ideas from the first run and tried to make it plussed up for current day aesthetics."



Vector Sigma Door



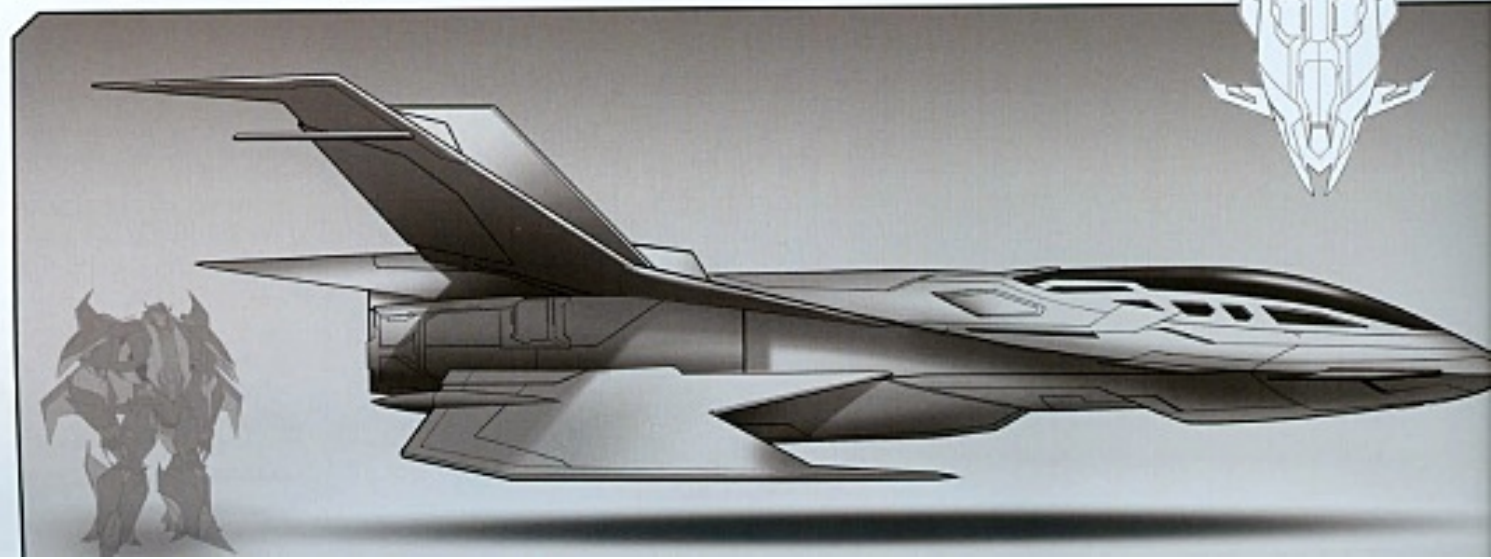
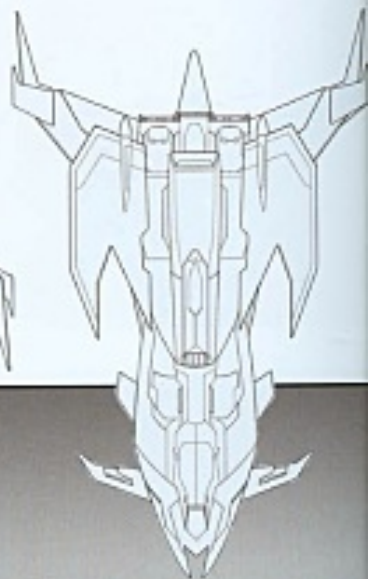
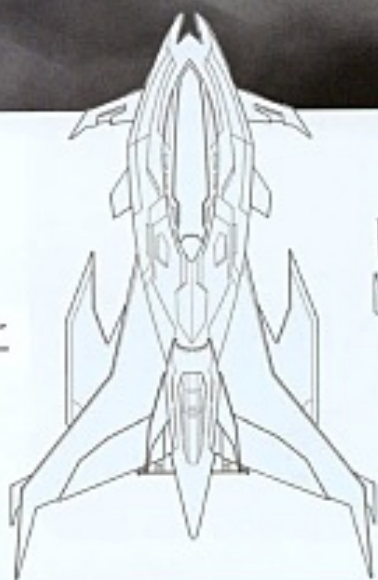
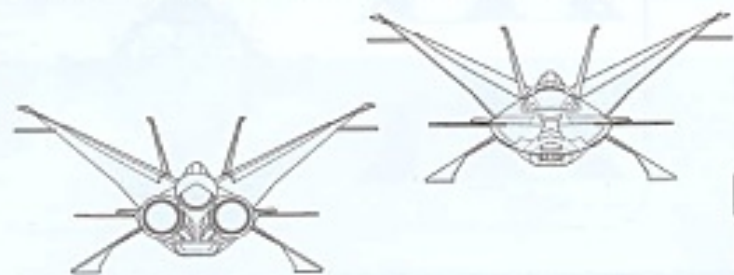


Season Two climaxes with the fight for the Omega Lock, an immense artifact capable of restoring Cybertron to life... or turning Earth into a metallic wasteland! The scale of the artifact is apparent despite the lack of characters in the illustration.



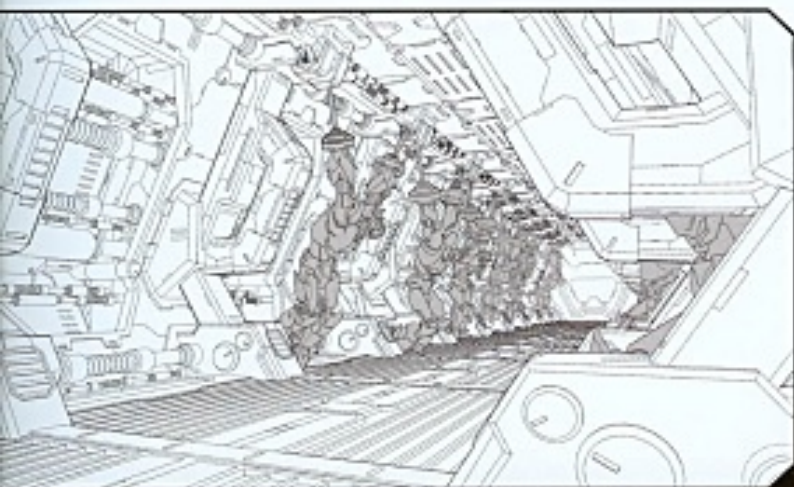
CYBERTRONIAN SHIPS

Transformers Prime gave us no shortage of space ships, each with its own character. Dreadwing arrived on Earth in the Sky Claw, a small personal craft that looks as if it could easily be a Transformer itself.



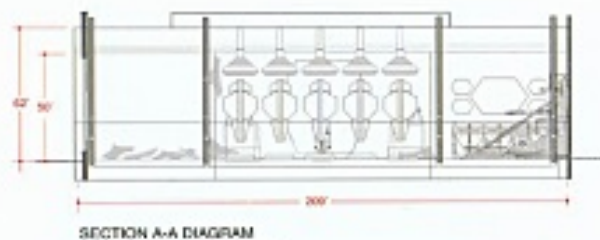
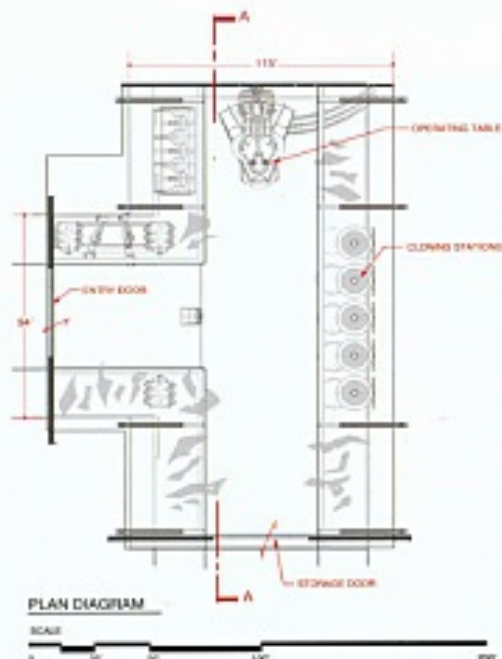


Smokescreen arrived on Earth in an escape pod after escaping from a Decepticon prison ship. While the vessel takes a few design cues from the Nemesis, it is its own beast, deadly but compact.



DECEPTICON ESCAPE POD



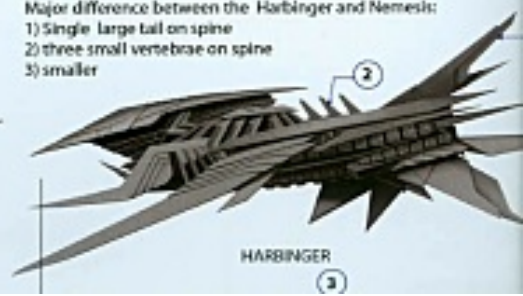


Even more than the prison ship, the Harbinger owes its design aesthetic to the Nemesis, though with subtle differences. It housed the Immobilizer, and would serve as a temporary bolt-hole for both Starscream and the Autobots.



Major difference between the Harbinger and Nemesis:

- 1) Single large tail on spine
- 2) three small vertebrae on spine
- 3) smaller



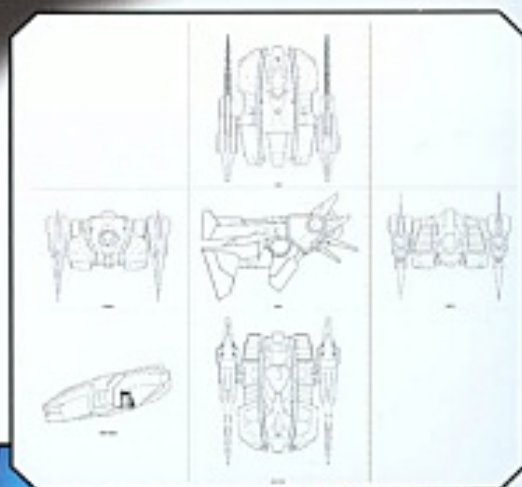


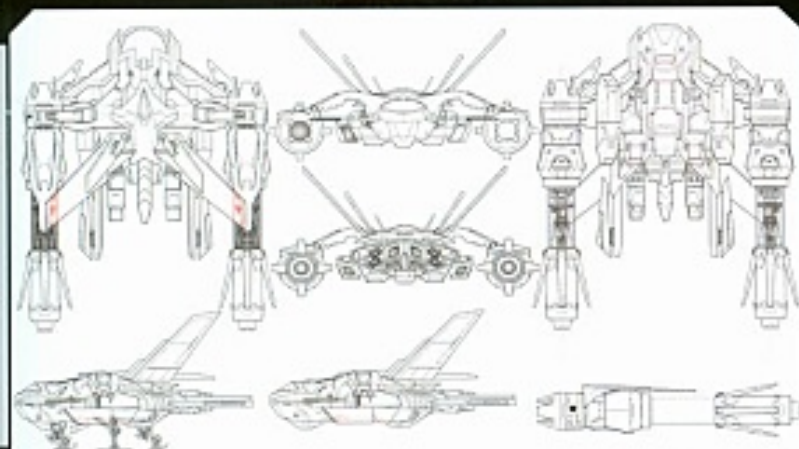
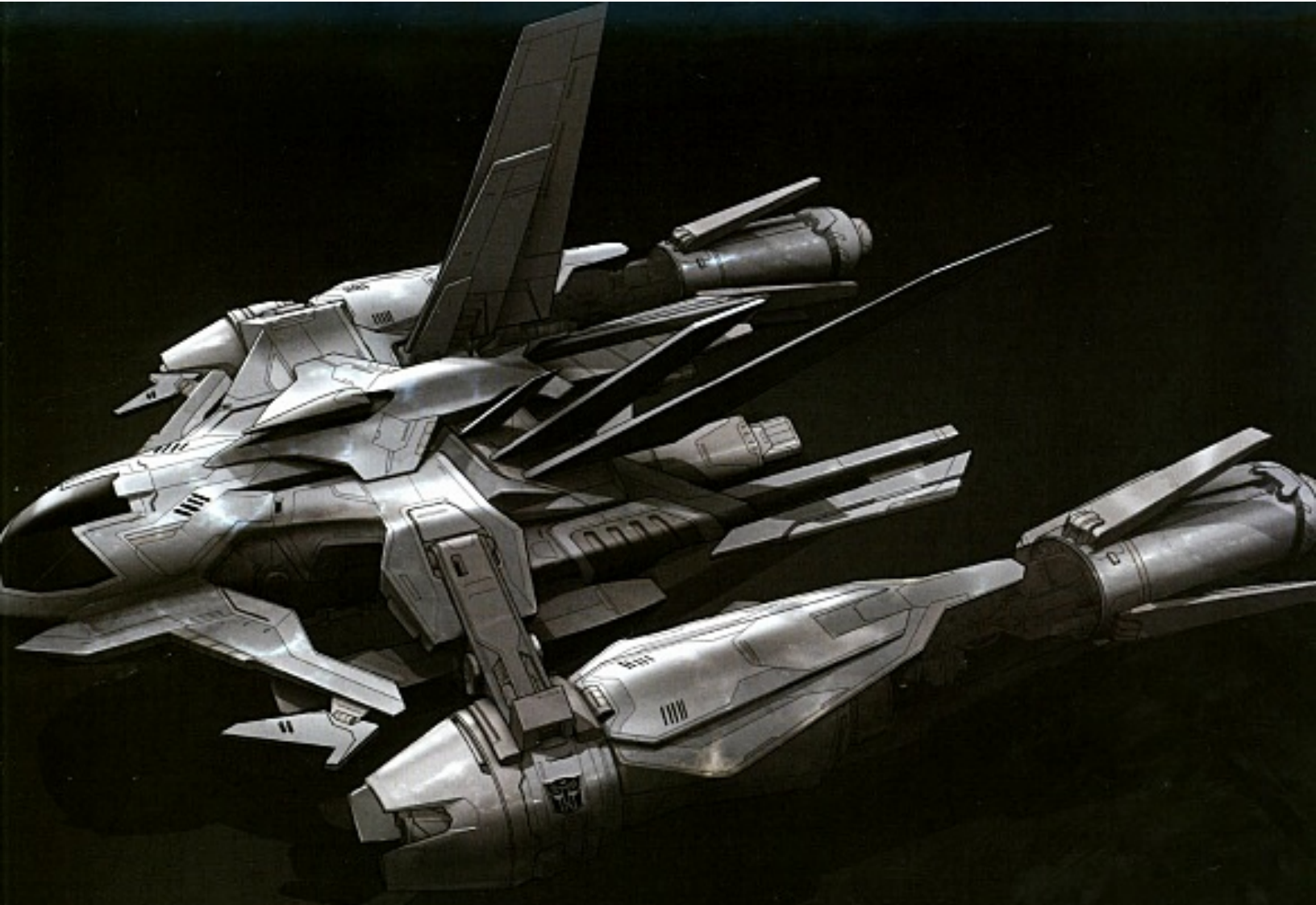
The moody interior of the Autobot transport that splashed itself over the Gobi desert is appropriate, as it was brought down by a plague that would go on to infect Optimus Prime.





Wheeljack arrived on Earth in the *Jockhammer*, a ship he would use to great effect against the Decepticons time and again until Starscream shot it down at the close of Season Two.

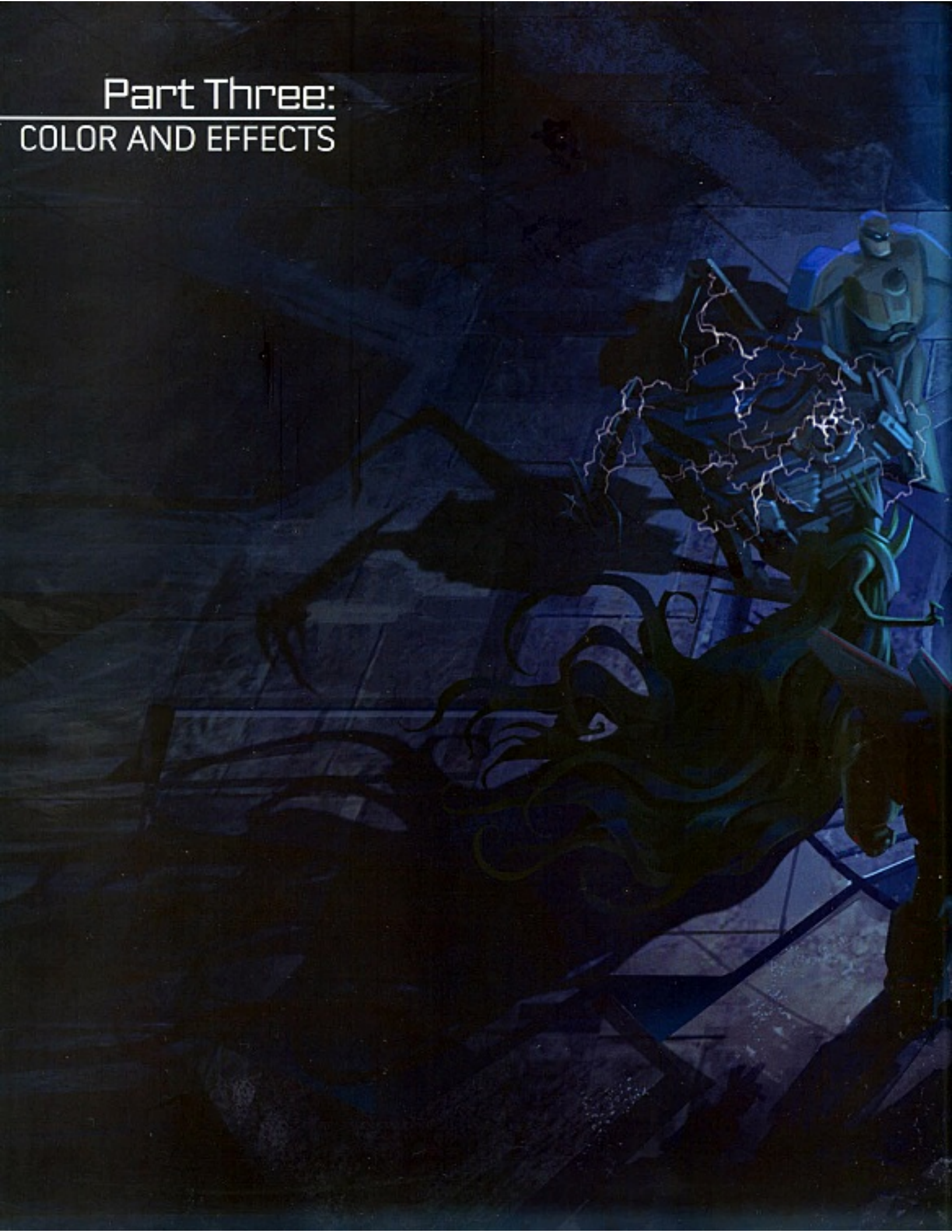




Ultra Magnus arrived at the beginning of Season Two flying the *Iron Will*, a small-scale attack craft bristling with weapons. It would meet its end in *Predacons Rising* battling Unicron. Designer Augusto Barranco was particularly proud of his work on this ship. "Seeing it come to life in the first sets of rough animation was incredible. I had to highlight all the moving parts, so to see all the wings working, to see the landing gear deployed, was just incredible."



Part Three:
COLOR AND EFFECTS





Christophe Vacher - Visual Effects Art Director

When arriving on *Transformers Prime*, back in 2010, I wasn't sure what to expect. Coming from 17 years in feature animation, I didn't know how hard it would be for me to go back to a TV show environment where, by nature, things are usually faster paced, with less time and less means to produce quality than on large scale productions. Also, the type of work I was hired for (supervising color, lighting, matte paintings and FX designs) was something unusual for TV animation.

I knew it would be an adventure for sure.

Having grown up with *Transformers* and other sci-fi TV shows and toys, it felt like it was fantastic to have the opportunity to work on the rebirth of one of the shows that had enlightened and inspired my teenage years. To be passionate about what you are working on is always the number one motivation for me.

Beyond that motivation, having observed how the industry had changed over the years—with new tools and new pipelines—I also wanted to see how different things would be from my first years in TV animation back in the '80s, and how much quality from feature film experience I could bring into my work on *Prime*.

There are good and bad things on feature films; the good is that you learn how to push your craft to its very best. The bad is that you sometimes see a lot of money wasted with people who are afraid of making final decisions because they are presented with too many choices. With *Prime*, the challenge was to try and make the best artistic decisions in the shortest amount of time. Furthermore, making sure that, from pre-production, to production, to post-production phases, everything was following the artistic vision and path we had created, all the way to final delivery.

I think that right from the beginning, *Prime* was lucky to get an incredible pool of talent, from top to bottom, and that each and everyone played their own part in the phenomenal success of this series. The Japanese production studio, Polygon Pictures, although working with us thousands of miles away, gave us their very best and we couldn't be prouder of what they achieved with us. Added to the mix, the first-class music created by Brian Tyler [*Eagle Eye*, *Fast and Furious*, *The Expendables*, *Iron-Man 3*, etc....] gave an outstanding dimension to the show.

The best part in all this was seeing how this project grew in quality from beginning to end, and raised the bar in TV animation quality at large. Looking back, from Season One to Season Three, as artists developed their understanding of the director's vision and refined their input in the series, it matured into something that we couldn't have envisioned when we started.

Today, I feel that *Transformers Prime* has left an indelible mark in the history of TV animation, inspiring young generations the same way I was inspired by the first series. We are closing a circle, and I'm glad I was part of it.



T-COG WITH EFFECTS



CYBERTRON AT WAR



CYBERTRON REVITALIZED



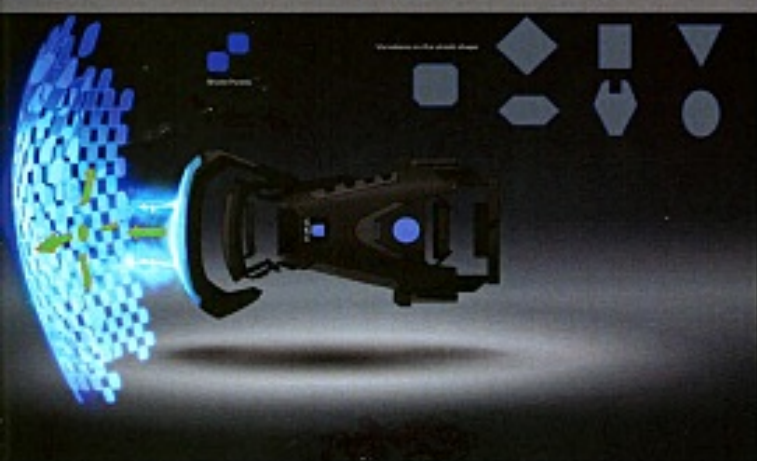
CHAPTER SIX

EFFECTS



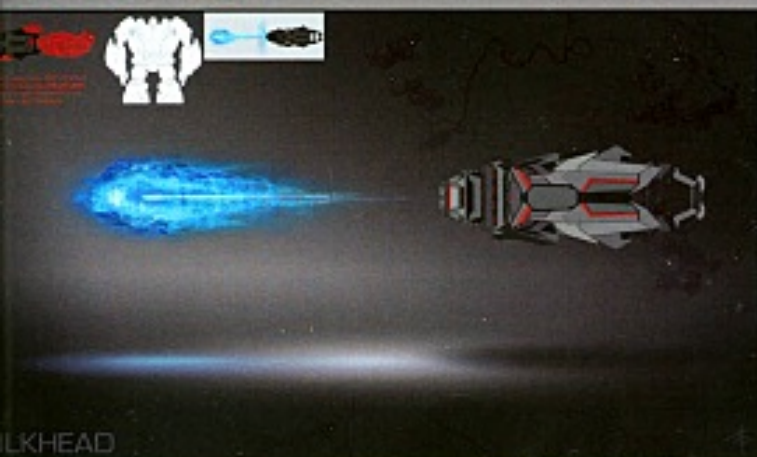






WEAPONS

It would be almost impossible to separate out color and effects from design and sets. Indeed, effects litter the character models in chapters 1-3, and most of the images in chapters 4 and 5 are dressed up in color. Nevertheless, there are some areas where the effects seem to take center stage. Weapons is one. Note how different Megatron's blast feels from the Autobot weaponry, and observe the subtle (and not-so-subtle) differences between various Autobot weapons.

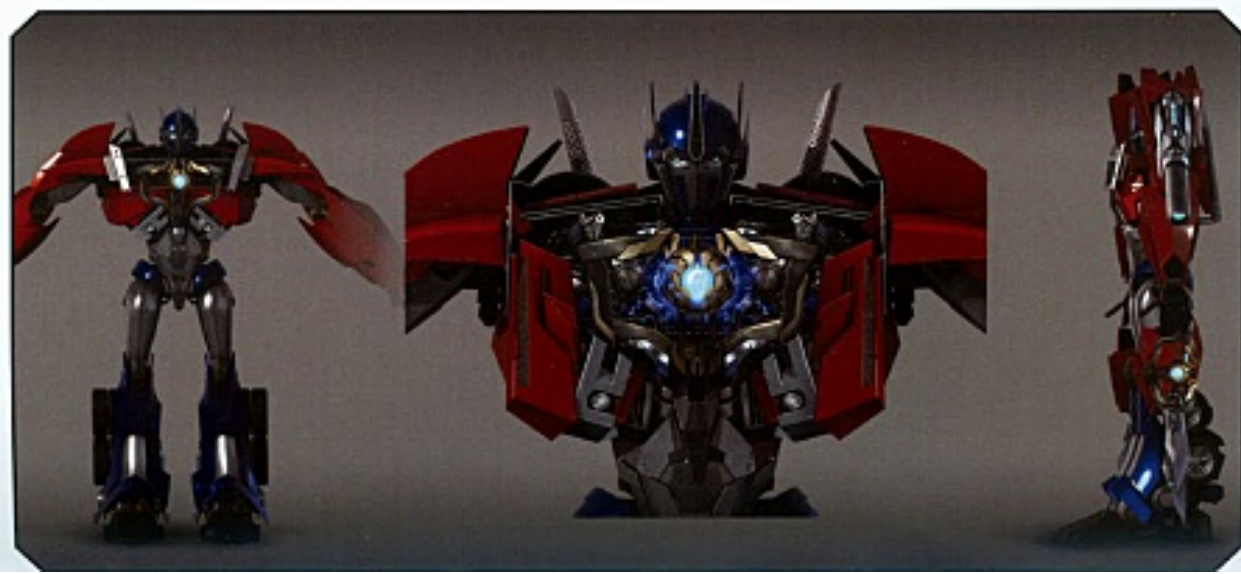
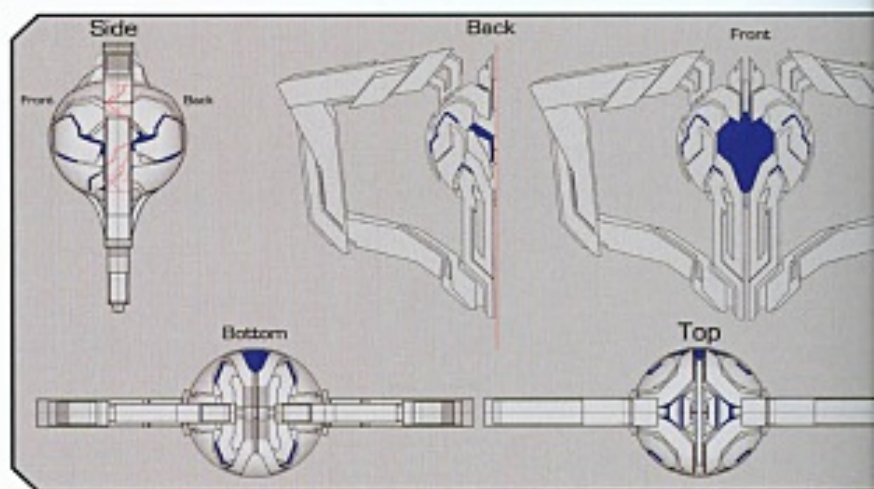


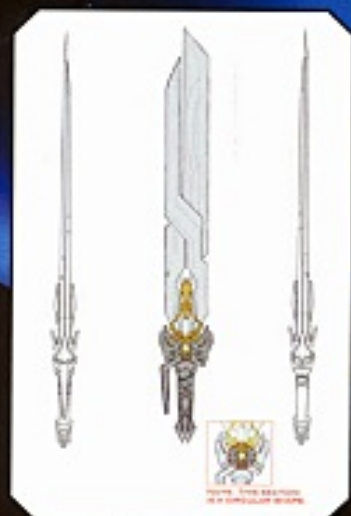
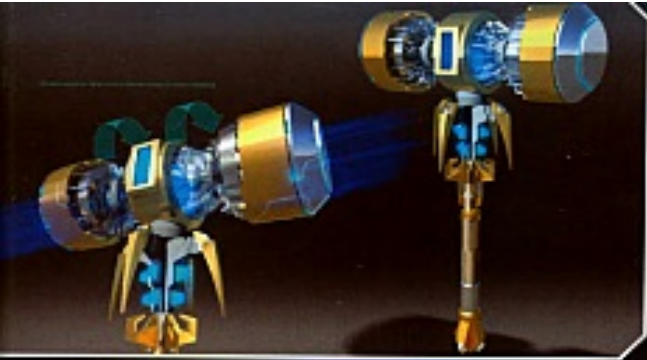


THE MATRIX

Ever since *The Transformers: The Movie* in 1986, the Autobot Matrix of Leadership has played an important role in the mythology of Cybertron. Design and effects combine to create a beautiful image. Would the Matrix of Leadership feel the same without its gentle yet powerful glow?

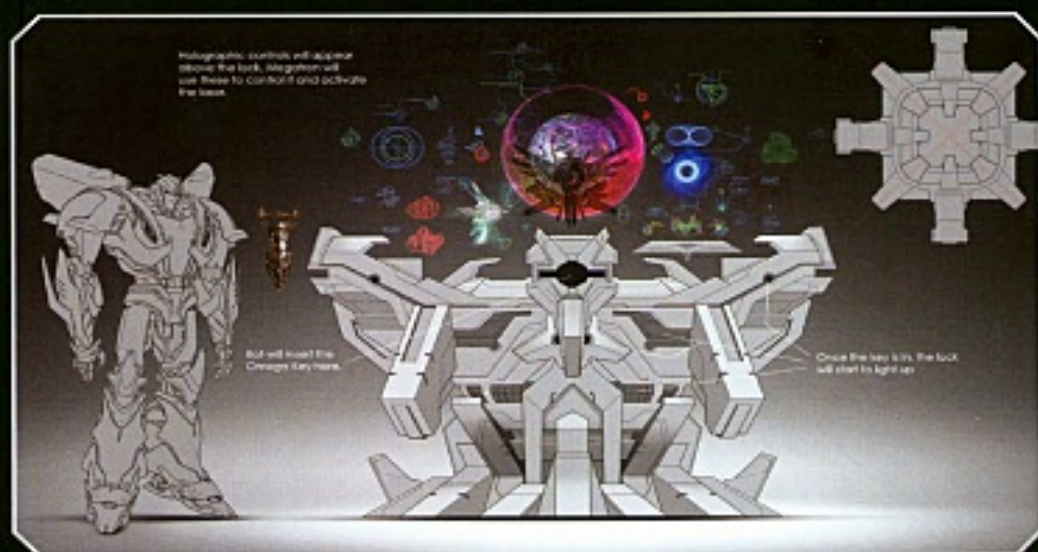
Designer Augusto Barranco found creating the Matrix lead to a personal revelation. "I was a fan of Transformers but I didn't know how big of a deal it was until I started designing the Matrix of Leadership. Jose told me that this is really big, this is very important. I was skeptical until Comic-Con. Then I found out how much people care about this."





ARTIFACTS

Mystic artifacts have been a part of the Transformers mythology since the beginning. Effects give them something special beyond the designs. Observe the power of the Star Saber and the complexity of the Forge of Solus Prime.



Witness the care given to describing the Omega Lock and Keys, so critical to the final arc of Season Two.





COLOR

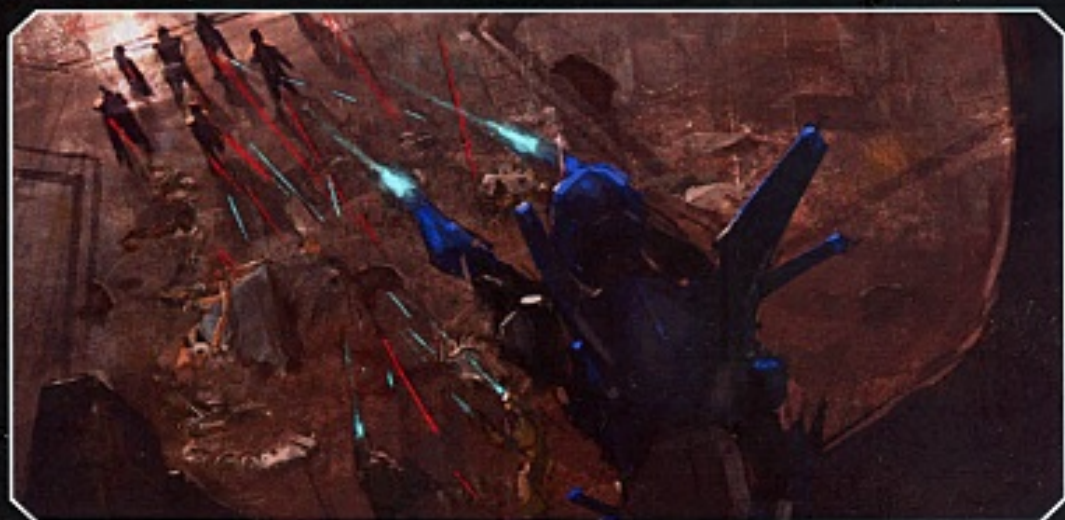
Color adds dimension and emotion to designs. So much of the breathtaking beauty of *Prime* owes itself to its rich and realistic color palette, bringing already gorgeous sets to stunning life.







Color can also depress. Compare Jasper, Nevada, after Megatron is through with it here to the happy town on pages 124-125. Feel Fowler's pain as he is tortured by Starscream. Experience the hopelessness of being outnumbered a hundred to one as Arcee battles for her spark against the Vehicon hordes.



INTERVIEW:

Christophe Vacher, Visual Effects Art Director

Why don't you tell us how you got involved with animation and how you got involved with Transformers Prime?

With animation, that's a long story, back in the '80s I was in Paris and I got involved with *Ninja Turtles*, the original series. I showed them my portfolio and was hired as a character designer after that. And then after that I made my way to various studios in France, eventually ending up at Disney. Same thing there, I just showed them my portfolio and eventually was hired, when Disney had a studio there, they don't anymore so there was this window of opportunity when they had a studio there of coming here and I was lucky because they didn't last too long. I worked for Disney for about ten years, three years in France, six years here, plus an additional year for *Enchanted* and then I worked for Dreamworks for about a year and then Universal Studios for 9 and then finally *Transformers Prime*. [Prime Director] Todd [Waterman] is the person who actually got me on the show. We had a common friend who was a storyboard artist and I was just out of work after 9 and that friend said "Hey, why don't you meet my friend Todd, he's on *Transformers Prime* and they're looking for an operator." So I met them I and I got hired. It was great, I grew up with Transformers and big robot shows.

So you were a fan when you got hired?

Yes I was definitely a fan. Transformers was not as big in France as it was here so it was more like we had the first animated TV show—what they call in Japan *Grendizer* which is actually called *Goldorak* in France. That's what started anime in Europe actually, because France was like the first hub of anime stuff happening and after *Goldorak* it spread out all over Europe and after *Goldorak* there was all this other anime stuff happening.

So, what is your role on Transformers Prime?

So I do, technically, it would be the same as being the art director on a feature film. I do the same kind of job. Now on TV, titles can vary depending on who already has what on the show and it's not as compartmented and straightforward as on a feature film. So in the first season my title was Supervising Color Designer, on the second season it was Visual Effects Art Director but really it's what would be called on feature films, Art Director. So usually on feature films there's an Art Director, Character Designer, there's the Production Designer who's in charge of most of the design. That would be Vince Toyama on *Prime*. There would be the Art Director who would be in charge of everything like lighting, color, texture, even designing special effects because most of the time he works with the effects department to help them come up with a look. He gives the seed that they are going to use to develop visual, special effects on the full scope of the production and the matte painting also because he needs to make sure that

everything works. Basically I start from the beginning, producing small paintings to give an actual first look at what the final frames could look like. Then I follow up the process by gathering all the stuff that other people do put it all together to get a final look and then it's sent to Japan with everything else and then I follow the path. They keep sending frames, shot from Japan and the three Supervisors and the Supervising Director will look at it and give our notes and if needed I do Photoshop. I take a frame of each shot that needs to be corrected. I give them a corrected frame and they follow exactly that and eventually we get through whatever is finished and then, with the director, I'm usually the last person who looks at the whole finished show, with dialogue, music everything complete, color correction and eventually the director, when he gets too busy, leaves me to do it on my own and that's pretty cool because I'm at the very very beginning and the very very end of the show.

What's the process for creating a matte painting? They send you the script—how do you decide "Ok we need a matte painting for this?" How does it actually get made, technically and how does it get approved?

There are a lot of different people involved so usually it's decided early. Usually Vince looks at it with his team and they decide. They don't do technical, in production layout but at least they get an idea of what will be needed in terms of matte paintings. They organize that, they let Japan know that this is going to be a matte painting and then I follow this along and when the time comes, usually in our situation where Japan is actually the production studio usually they are in charge of doing the matte paintings but at one point we had to help them so we were both doing matte paintings so it has to be fairly flexible.

Matte paintings on a TV show are fairly simple from a technical point of view because usually, especially in our case because we couldn't afford to build 3D assets for the foregrounds. Usually on a feature film, like *Pacific Rim* which I saw yesterday, it's highly technical, all of the matte paintings have layers and layers and two and a half D elements but they will really use two and a half D if they really need to but usually on a feature film they have a big enough budget to produce 3D assets for the mid-ground and foreground. They have all these assets and the very background is a flat matte painting—the last layer of the matte painting.

In TV most of the matte paintings we have don't have—and you can see it when the camera moves and the elements move you see they are flat and they do not necessarily have any dimension to them. You just paint with Photoshop and you come up with photographic tricks. So I follow through this process and then, same process again, I take a frame, paint over it with Photoshop and tell them what is going wrong like if the blacks are not rich enough and you lose the mysterious aspect of the picture so we have to

THE THIRTEEN PRIMES



justify that stuff. Also with color calibration we don't know exactly what they see on their monitors compared to what we see here and that's one of the fairly common problems between productions. You have to be sure that what they see there is the same as what we see here.

How do you do that?

Usually it's through color calibration but we know that even through proper color calibration—there are standards in the industry for monitors and color calibration—so we try to follow that but even, and I know from experience, using the same monitors, the same color calibration software, you don't always get the same thing. Because when I was working on *9* in Canada and between Canada and here we had exactly the same things and then we'd go to Canada and look at their monitors and say "this is not the same thing at all." So you can never totally know, you can only kind of assume that this is close enough and try to stay close to standards.

You mentioned "two and a half D," can you talk about what that is?

Usually in a matte painting you have three types of elements to simplify. You have a flat board or several flat boards that are going to be moved around depending on how the camera moves. You have elements that are two and a half D which means they are camera projections—fairly simple geometric shapes on to which you project a flat image that has already been painted. And so it gives the idea that it is 3D because you can move it but you can't move it too much like a full 3D object. A full 3D object is built with details, with texture and then you apply lighting to it. With two and a half D it's more like it's a rough geometry but the image is projected from the same area as the camera so you can't turn it too much because you will start seeing the stretch of the image. That's why it's two and a half D because it's not full 3D but it's more than just 2D. It pushes it a little more so you have a sense of volume and we use that a little more when there's a sense of shift in the camera move and for the front the foreground there's actually a full 3D element. But sometimes it's very much a case of how much the camera moves because eventually the camera moves even just a little bit you have to start using the parallax and make every object that is 3D match exactly the perspective and angles of the flat painting. That is when they use specific software to match the parallax of all the elements in the image. Sometimes you exaggerate the parallax of the move to give you the feeling that the camera is going faster than it really is. But you really have to understand how the camera moves to be able to cheat with all these elements so that's more like Vince's team. They don't do a lot of that but they have to understand it exactly and because I've been involved with so many projects I see how it works and I know how it works and also with matte painting you have to know that kind of stuff.



THE POLARITY GAUNTLET, WITH AND WITHOUT FX

Can you talk about the textures on the show and how they're used to differentiate the robots from the humans, from the sets?

That will also be Jose's expertise because he designed all that. He designed the characters but that also included the coloring and textures on the characters. From my point of view it would be like taking those elements and those characters and seeing how we can integrate them the best in the coloring and lighting environment. The production studio, when they do that stuff, they take several models of the same characters or the same textures because eventually when you have a character that's very small in the background with the same amount of texture as if he was really close something is wrong. You see that something is too weird—there's too much texture on the character and it doesn't integrate well into the background so very often production studios will use three or four different types of textured characters and objects so every time the scale of the texture is at the proper scale to match the character. If you have a very small character and a big background obviously the background is not more important than the character but it has to work all together. If there's too much texture on the background or the character it won't give you the proper feeling so that has to be dealt with separately depending on the shot. That's a whole lot of thinking, a shot by shot basis, unlike something like videogames. Videogames they cannot go this route because they can't control every single shot. You go inside the game and the texture has to be the same everywhere although now I know they have software that can modify as you go inside the game, but they don't have as much flexibility as we have. Usually on TV or film every single shot can be tailored to the visual that we need for the audience and that makes the whole difference.

You also mentioned effects, so what are some of the different effects that Prime would use?

Like for instance the Ground Bridge or the Space Bridge—that was a big one. You paint something that looks cool and the director can





COLOR SCRIPT FOR MAIN TITLE SEQUENCE

approve and you send it to the effects department and they try to replicate something that looks similar. Obviously in this case, particularly for effects, the bigger budget you have, the more you can develop really cool effects and that's why effects in big movies are so big because they spend a lot of time just developing those things. And with particle effects in Maya you can develop effects with a really big scale, in slow motion, explosions with particles that fly around. We don't have as much leeway there. We definitely work with much smaller budgets so the production studio has to come up with something that is as close as possible and is as spectacular as possible but with a much shorter amount of time. Not much exploration time really so they just have to go with the flow and try to see what they can come up with in a short amount of time.

One of the things that stands out about Prime is that it has a feature film feel to it. I understand it's obviously done on a smaller budget, with a smaller timeframe, but it has that feeling and much of that was visual. Was that something that you were striving for?

Yes, definitely. That's one of the reasons I was hired on this show, because most of my experience comes from feature films. That helped me a lot. That's one of the reasons I came back to TV because I loved big robot TV shows and I was like "What can we do with this to actually make it like a feature film?"

Dave understands feature films very well so he already had this bigger scope vision of the TV show. I saw that he had that and I thought "That would be cool thing to try with a much smaller budget. What can we do to bring a bigger scope, better lighting on a TV budget?" Most TV shows until now didn't have much art direction, especially animation. Most animation TV shows didn't even understand what art direction was. They had painters, artists, and you'd just throw stuff at them and say "Do something," but they didn't have one or two people in charge of designing lighting, designing color, and things that are usual on a feature film. They would have character designers and environment designers but they didn't have someone with color keys and color scripts. A color script is composed of small vignettes that you paint one by one—like a mini-comic book. There's only so much you can do on each episode because it has to go fast but just adding that, even if it's very rough, just sending that to the production studio it makes a world of difference because they can patch things together. They can start understanding the visual lighting flow of the whole show.

The color script is really essential to making a TV show. It's basically all you have in sets is color keys, full paintings, with more detail, but per episode we have three color keys of major new sets in the episode and in between I will start making mini color keys, without detail, just to give an idea of the lighting and the colors. That's what the production studio uses. It's like an anchor inside the color environment, the lighting environment. They use that to complete the whole episode. Without that they can't finish.

There's also the sense of scale, that's more Vince's expertise. I think Dave had a vision for the show—he wanted something cinematic and big—that spread out over everybody and even though I think I was the only person on the show who has actually worked on feature film other people really started to understand what they needed to do and eventually do something that was something big.

Also the music, Brian Tyler, I've said it many times, just that is giving the show already. Music gives a dimension to a TV show. You can have all the visuals you want but if you don't have the music it will be very flat. That was another part we were very lucky with, to have Brian Tyler doing the music, because he didn't have to come on our show, he did it as a favor and that was just amazing, to get this guy.

Can you talk about maybe the lighting on the show and what makes it special?

That falls into what we were just talking about. We went for a lighting that was definitely more realistic and a lot of the painters that I interviewed for the job just didn't understand that and that's why I needed painters who really understood either planar painting—which is where you just go outside and paint landscapes with natural lighting or who just had this sense of what natural lighting is. Usually natural lighting is much less saturated than an animated cartoon TV show. The more saturated the lighting, the more cartoony it's going to look, so we went for more subdued colors. Even when the characters had saturated colors the key part is to take those saturated colors and put them in a natural environment with natural lighting. Whether it's outside, with the sky, or whether it's inside, with artificial lighting, you want to just tone down all the saturation so when your characters are in the environment they don't look out of context—they look like they fit in the environment because wherever you are, even those objects that are pretty saturated are still integrated into the environment. All of this stuff you learn as a painter—how colors bounce in a room. It's very similar to what lighter

in CG these days. The understanding of a realistic painter and a lighter in CG are exactly the same parameters. We use exactly the same understanding of lighting as in nature. Or a photographer—same thing—same lighting, we use ideas, the same parameters and just express them differently. That's what I was trying to push on the show and that's what we've wanted. I painted a few things, showed him and he told me it was the right direction so that was one thing that definitely made a difference.

The show has a wide variety of environments, some of them alien, some of them different planets so, how, for example, do you use lighting to make it feel like Cybertron isn't Earth?

That's actually a good question because we talked about that a lot with Dave and for instance there was a big question about the atmosphere. I wanted to have something that was still very dramatic in lighting. I use lighting a lot for drama and drama effects. On Cybertron we wondered how we were going to achieve that because it doesn't have an atmosphere but I was starting to introduce clouds because clouds are something that really helps for a dramatic effect of a scene. When I started the show I made a whole booklet about the structure of lighting on the show and how we were going to approach it and sky and clouds were a huge part of it because from a design point of view clouds are an important part of our background environment. You can give clouds any shape you want and it doesn't have to follow any kind of specific architecture but you can use that as a design and lighting element to create drama. But then we were on Cybertron and I wanted to start pushing design in clouds that will allow us to have a very dramatic and powerful lighting. Dave was going the logical way, there's no atmosphere on Cybertron and so how can we do that? We can't have a nice starry sky above because it's going to look pretty and it's going to fall apart. So he said "Maybe we can have some kind of hazy layer" but that created something that became very tricky with the production studio because they wanted to know, "Is it fog? Are there clouds?" so in some shots that came back you could see the stars and in some other shots in the same location you had clouds and fog so they started to not understand what we were looking for. It was hard for everyone to be on the same page so we had a

little difficulty. If you go back to those shows at the end of the first season if I pointed out some shots you would see what the problem was and the lighting started to completely fall apart. One shot would be too dark, one would be too light because the studio over there was getting confused, but it was our fault, definitely and eventually we rectified a lot of things and color correction, thank God, was something that could help us.

So how did you solve that situation?

Well eventually we used, I wouldn't say clouds, but hazy layers almost like clouds to cover the light when needed, like when they are in Kaon we use a lot of smoggy layers to push the lighting into the background and give an eerie feel to the whole place and when they needed specific lighting, when Jack arrives at the entrance to Kaon, for instance. The original key I had done there was a soft lighting that was going through a layer of disturbances in the sky that looked a lot like clouds and Dave said that was a little too much, it was a very pretty image and it fits the moment but from a logical point of view you can't have it. The Japanese studio took that image and toned it down and Dave was guiding them through the process but sometimes it was up and down and some shots were more successful than others. It was a bumpy ride at that point, so we fixed it more or less by toning things down but it didn't work exactly all the time.

You've been recognized for your work on this by your peers in the form of an Emmy, so how did that feel?

Actually two! It felt great. It was very unexpected, especially the first one. It feels amazing—when I put that stuff at home, the first week, it's hard to picture that it's in your place. You walk around and you see this thing you've seen on TV for years and you're like "It's really here." It's so surreal. You get used to it but it's weird because it becomes a common object in your place but it's such a mythic object in a way that you're like "No, it can't be mine."



CHAPTER SEVEN

MATTE PAINTINGS





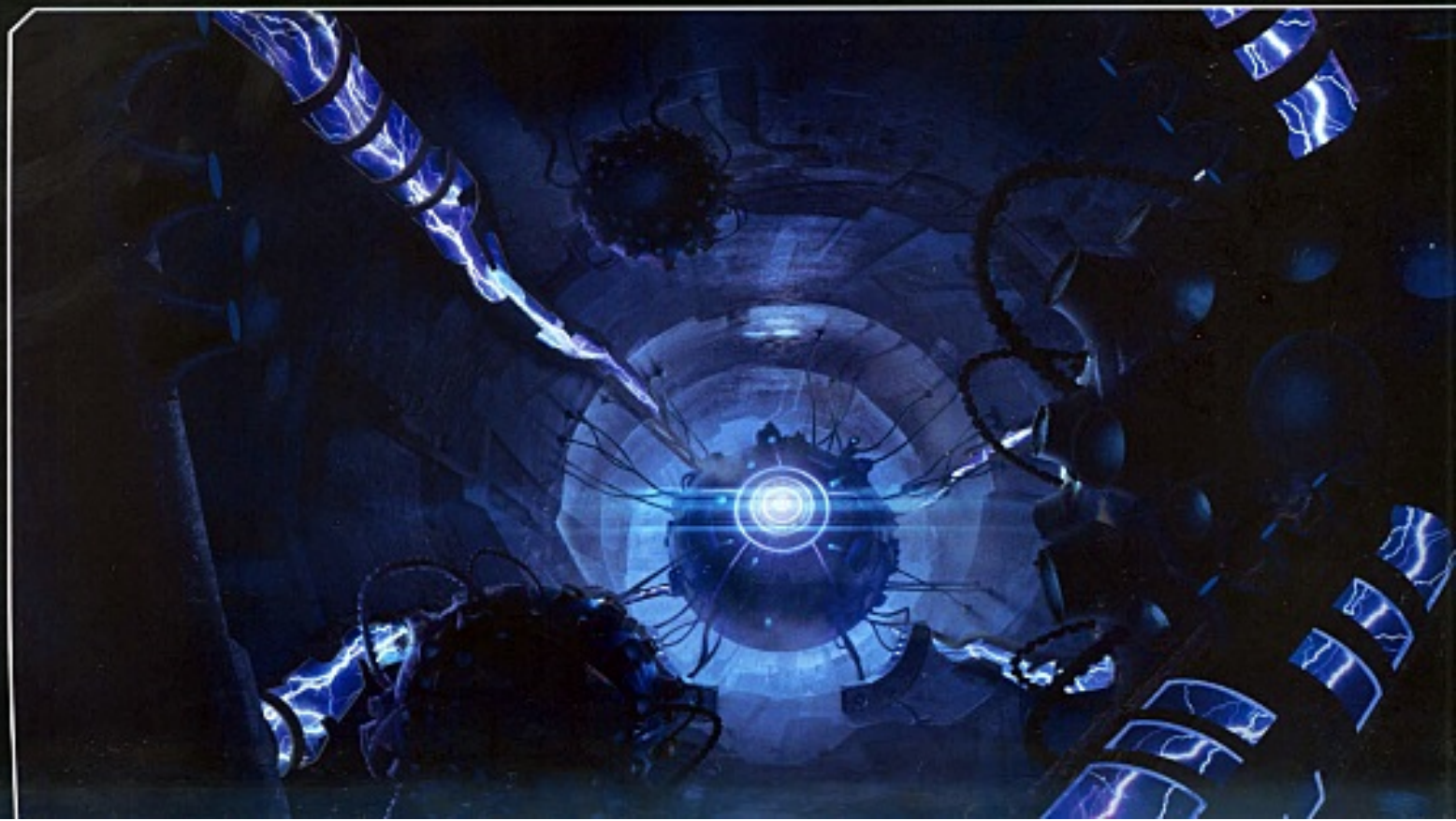


THE THIRTEEN ORIGINAL PRIMES

As with color, matte paintings wend their way all through the book. They allow the production staff to create scenes and environments that would otherwise be too difficult and time consuming to create full 3D models for.

They were used to particularly good effect in the Season One finale to retell the mythology of the Transformers. In episode 24, "One Shall Rise, Part 1," we witness the genesis of the planet Cybertron, as told by Optimus Prime. We see Unicron's rise, and the creation of The Thirteen original Primes to cast him out. We marvel as Primus fuses with Cybertron and brings life to the planet through the Well of All Sparks. Two scant episodes later, in "One Shall Rise, Part 3," we learn more. Ratchet tells the tragedy of the early days of the Great War, as Orion Pax and Megatronus, friends earnestly trying to reform a calcified society, become Optimus Prime and Megatron, the bitterest of enemies.

The use of matte paintings for these flashbacks give them an unusual feeling, subtly setting this part of the story apart from the current narrative and giving additional weight to the history.



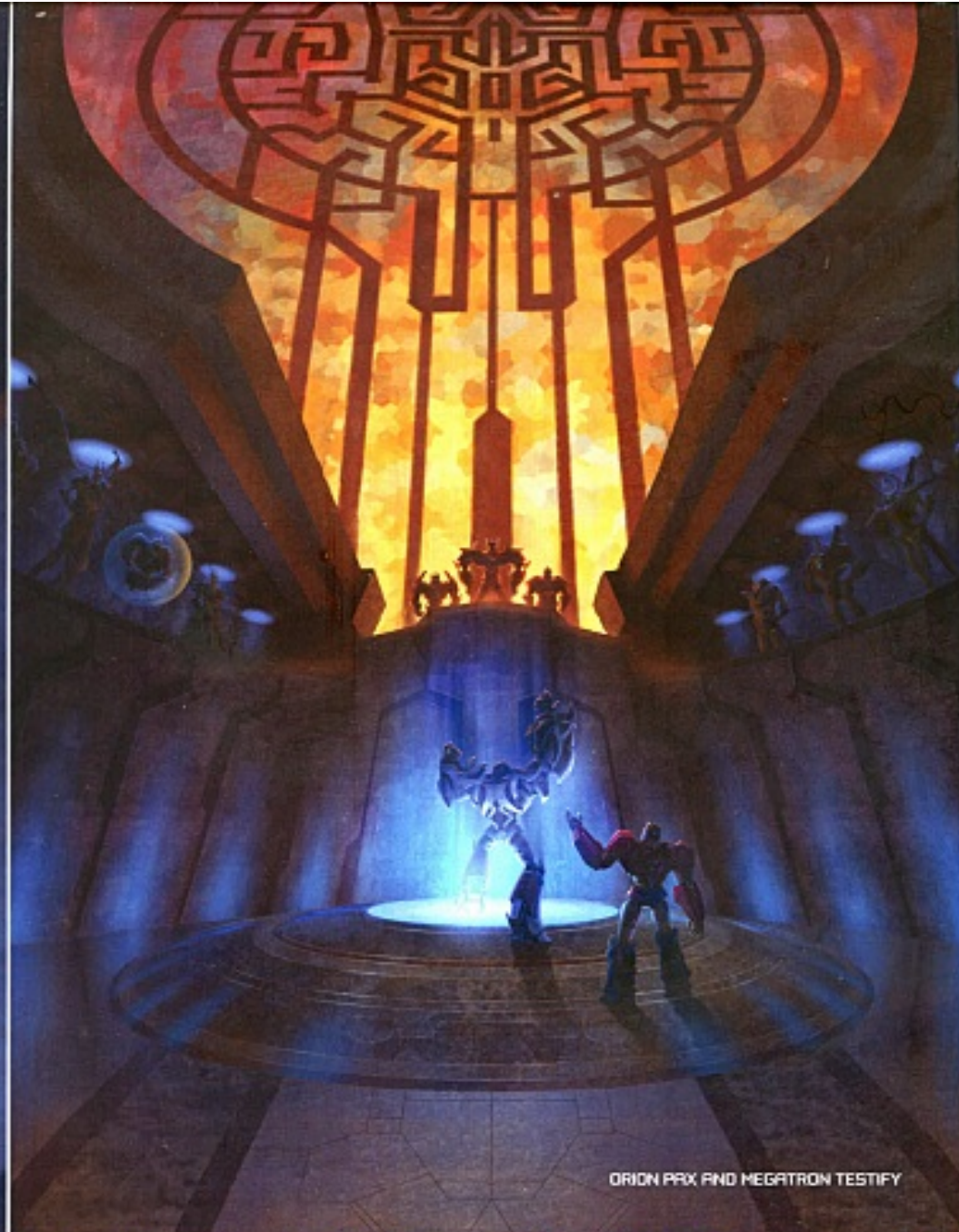












ORION PAX AND MEGATRON TESTIFY



MEGATRON'S GLADIATORIAL TRIUMPH











AFTERWORD: David Hartman

It was at Ernie's Taco House in North Hollywood when I first heard about *Transformers Prime*. I was having dinner with Jeff Kline and he teased me with a new project he might be spearheading. It would require building a new studio from scratch—and delivering a signature series to a brand-new network in record time.

Of course, I was “in.”

A month later, I was holding up concept art in Alex Kurtzman's and Roberto Orci's bungalow on the Universal lot, talking the room through the overall look of the series: a cinematic, moody take—designed to feel more like “live action” than animation. Those initial designs included a silhouette of Megatron standing amidst his army against a fiery red backdrop—an image that went on to become a key part of *Prime*'s main title.

With Duane Capizzi onboard, writing the pilot, and office supplies and Cintiqs back-ordered, we moved on to bringing in our key designers, directors, and storyboard artists. Jeff had only one rule: “No a-holes!”

I felt strongly that *Prime*'s heroes and villains needed to have a “human” quality to them. Animation Producer Therese Trujillo suggested Character Designer Jose Lopez—whom we had all worked with at Sony. I am a huge fan of Jose's work and was ecstatic we were able to bring him onboard. Jose did some preliminary sketches; you could immediately read each Bot's “story” just from the pose and attitude he chose. Ultimately, a mixture of Jose's own unique style and a love for the original G1 designs became the “look” of our lineup.

We then lured background designer Vince Toyama—a former architect we had toiled with on several different series. Vince's prior experience helped us fashion 3-D sets that could work practically, as well as aesthetically. There's no room for cheating when you're building locations that 15-ft. tall CG models must be able to comfortably live in.

Typically, at this point in putting together an Art Team, you would bring in a Colorist to begin setting the palette for the series, and paint over the black and white background designs. But since we wanted *Prime* to have a “feature film” look, we opted instead for a Lighting Supervisor. Because the CG models are basically “detailed” with light, we needed someone who could function as a Director of Photography, and create realistic environments. Christophe Vacher proved to be more than up to the task.

For me, the next three years were a constant stream of storyboarding, editing, sound-mixing, and working with our Composer—Brian Tyler—to create what would become a multiple Emmy award-winning series, and one of the proudest achievements of my career.

With every show you work on, you hope that your colleagues become “family.” Luckily, on *Transformers Prime* we fought, screamed, drank, and laughed together. A lot.

The book you hold in your hands is filled with the same passion that fueled us every day. Some of what you'll see is rough, some more finished. And some is art that was never used for one reason or another. For me, this book is like a photo album—every image has a memory attached.

I thank the entire Cast and Crew, our partner studio, Polygon Pictures, Hasbro, Hasbro Studios, and The Hub for helping make these memories. And I especially thank you—the Fans—for letting us do what we love for 68 amazing half-hours.

David Hartman
Burbank, California
7/31/13





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